U.S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2003

NORTHWESTERN DIVISION

Budgetary information will not be released
Outside the Department of the Army until

4 February 2002

Justification of Estimates for Civil Function Activities
Department of the Army, Corps of Engineers
Fiscal Year 2003

NORTHWESTERN DIVISION

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Justification of Estimates for Civil Functions Activities
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SUMMARY NORTHWESTERN DIVISION

	FY 2002 Allocations	FY 2003 Request	Increase or Decrease
General Investigations			
Surveys	$ 4,746,000	$ 5,196,000	$ +450,000
Preconstruction Engineering and Design	2,840,000	1,833,000	-1,007,000
Subtotal General Investigations	$ 7,586,000	$ 7,029,000	$ -557,000
Construction, General			
Construction	$ 148,031,000	$ 171,581,000	$ +23,550,000
Dam Safety Assurance	3,193,000	1,200,000	-1,993,000
Major Rehabilitation	20,783,000	18,919,000	-1,864,000
Subtotal Construction, General	$ 172,007,000	$ 191,700,000	$ +19,693,000
Operation and Maintenance, General			
Project Operations	$ 105,500,000	$ 108,771,000	$ +3,271,000
Project Maintenance	109,383,000	117,696,000	+8,313,000
Subtotal Operation and Maintenance	$ 214,883,000 1/	$ 226,467,000 1/	$ +11,584,000 1/
GRAND TOTAL, NORTHWESTERN DIVISION	**$394,476,000**	**$425,196,000**	**$ +15,807,000**

1/ For Northwestern Division, North Pacific Region power projects, specific power costs and joint-use costs associated with power will be directly funded by Bonneville Power Administration.

4 February 2002

APPROPRIATION TITLE: General Investigations, Fiscal Year 2003 Northwestern Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
1. SURVEYS – NEW:					
a. Navigation Studies: None					
b. Flood Damage Prevention Studies: None					
c. Shoreline Protection Studies: None					
d. Special Studies: None.					
e. Comprehensive Studies: None.					
f. Review of Authorized Projects: None					

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2 . a. Navigation Studies: The amount of $50,000 is requested to continue one study.					
WASHINGTON					
Puget Sound Confined Disposal Sites, Seattle District	1,631,000	1,482,000	99,000	50,000	0

The study area is all of Puget Sound in Western Washington though there is concentrated focus on central Puget Sound in Snohomish, King, and Pierce Counties. Many of the port facilities in the Puget Sound have issues regarding contaminated sediments. Because of this issue, first recognized in the mid-1980's, many navigation and cleanup projects have been seriously delayed because of there being no feasible location to dispose of these materials. This study is striving to establish one or more multi-user sites for the disposal and/or treatment of these contaminated sediments from navigation and cleanups activities occurring around Puget Sound. The site(s) will need to be centrally located, cost-effective, environmentally safe and publicly acceptable. A Feasibility Cost Sharing Agreement (FCSA) was signed in July 1997 with the State of Washington to produce a programmatic EIS, and to perform a siting analysis to identify potential candidate locations for project alternatives. The siting phase is looking at facility management options, the facility siting process and siting criteria, feasibility of treatment and beneficial use of sediment, and a detailed public participation strategy. The final stage of the study will perform site-specific analysis and will result in preparation of a feasibility report and a site-specific EIS. The feasibility report is expected to recommend a contaminated sediment management plan for disposal of contaminated sediments, to meet the immediate needs of the Puget Sound region. The plan will detail a public-private partnership to create and manage an existing disposal facility. The project will not require any public investment, yet the Corps' work will only serve to enhance Federal projects for navigation and cleanup, thus providing benefits for both the environmental and the regional economy.

Fiscal Year 2003 funds will be used to complete the feasibility study in December 2002. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,867,000
Reconnaissance Phase (Federal)	395,000
Feasibility Phase (Federal)	1,236,000
Feasibility Phase (Non-Federal)	1,236,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: The amount of $1,466,000 is requested to continue eight studies.					
IDAHO					
Boise River, Boise Walla Walla District	800,000	65,000	31,000	50,000	654,000

The Boise River is a tributary of the Snake River located entirely in Idaho. It is a snow-fed river with high flows in early summer months resulting from melting snowpack. The Corps of Engineers Lucky Peak Dam and reservoir is located on the Boise River, upstream of Boise, Idaho, along with Bureau of Reclamation's Anderson Ranch and Arrowrock projects. These three reservoirs are operated jointly for flood control and irrigation storage. These reservoirs were built between 1917 and 1955, and the total space is available for flood control as needed. A series of non-continuous non-Federal levees line the Boise River below Lucky Peak Dam, the lowermost dam, through developed areas in downtown Boise and in Garden City, Nampa and Caldwell within Ada and Canyon counties. Both the Boise River reservoir system and levee system through downtown Boise and Garden City provide a level of flood control well below the 100-year level. Several emergency flood fights and rehabilitation projects have been completed since the 1970's. The channel through Boise is a very sensitive environmental zone which make channel and levee improvements difficult.

The City of Boise and its foothills have experienced rapid growth and development over the past several years. Land use along the Boise River Basin is also changing due to urban and farming encroachment. Ada and Canyon counties have just recently been named as the nation's fourth fastest growing urban area. These conditions have impacted flood protection and water resources. An earlier reconnaissance study was completed in 1995, but the study has been inactive due to lack of sponsorship. These recent changes in growth have sparked a renewed interest and urgency in flood control, environmental protection and restoration to include habitat preservation of indigenous plants and animals as well as quality of life maintenance along the Boise River by Federal, State, and local governments.

This study will serve several communities within Ada and Canyon counties including the cities of Boise, Garden City, Nampa, Eagle, Caldwell, and Middleton. Local flood control districts are also interested in the study. Idaho Parks and Recreation is interested in environmental study efforts. The Community Planning Association of Southwest Idaho would be a potential project sponsor that would represent all of these interests. The Water Resources Development Act of 1999 is the study authority for this project.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2b. Flood Damage Prevention Studies: (continued)

IDAHO, (continued)

Boise River, Boise (continued)

Fiscal Year 2002 funds are being used to complete the reconnaissance phase. Fiscal Year 2003 funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total estimated Study Cost	$ 1,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase is scheduled to be completed in April 2002. The feasibility study is scheduled for completion in September 2005.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
IDAHO (continued)					
Little Wood River, Gooding, ID Walla Walla District	473,000	73,000	60,000	145,000	195,000

The Little Wood River bank armoring project work began in the Fall of 1937. The project was funded by the Works Projects Administration (WPA) and was constructed by the Civilian Conservation Corps (CCC). The project ended in 1941 with the start of World War II. The armored channel was expected to be a "scenic drive" through the city of Gooding, ID. Considerable straightening of the river channel was performed. Along much of the length of the channel the walls were only built to the height of the surrounding grade. This armoring consists of relatively large basalt block roughly squared. Various areas include a wall of smaller uncoursed rubble topped by jagged basalt cresting. An above grade wall with forbidding cresting was put in place for safety reasons. The walls have historical significance and therefore must be repaired in a manner that resembles existing construction. The length of the channel that has this bank armoring is approximately 1.8 miles and is wholly located within the city limits of Gooding, Idaho. High flows and ice jams have severely damaged the walls causing localized failures. Erosion could cause damage to roads, bridges, and buildings if the localized failures are not repaired or replaced.

Restoration plans include removing the existing rock walls and replacing with new concrete walls that are faced with a basalt rock that resembles the existing wall construction. A removable chain link fence will be placed on top of the new wall. The fence will be removed in the winter for ice removable purposes.

The City of Gooding, Idaho is the potential sponsor for this project.

Fiscal Year 2001 funds were used to fund the reconnaissance phase at full Federal expense. Fiscal Year 2002 funds will continue into the feasibility phase and Fiscal Year 2003 funds will be used to complete the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$873,000
Reconnaissance Phase (Federal	73,000
Feasibility Phase (Federal)	400,000
Feasibility Phase (Non-Federal)	400,000

The reconnaissance phase was completed in December 2000. The feasibility phase completion date is scheduled for September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
KANSAS					
Upper Turkey Creek, Merriam Kansas City District	750,000	75,000	149,000	125,000	401,000

The Turkey Creek basin encompasses parts of Johnson and Wyandotte Counties in Kansas, and Jackson County in Kansas City, Missouri. The basin consists almost exclusively of highly developed urban area. The basin collects rainfall from storm systems that often move through Johnson and Wyandotte Counties along the line of the basin's orientation. Flood flows from quickly concentrated runoff move down the Turkey Creek channel and its tributary streams and typically overflow at bridge restrictions and zones of inadequate channel capacity. The primary overflow points from the Turkey Creek channel during the 1998 flood were at the vicinity of 75th Street, downtown Merriam, I-35 at various points in the basin, at the Roe Lane Industrial Park, and the commercial/industrial zone along Southwest Boulevard in Kansas City, Kansas and Missouri.

Turkey Creek floods produced significant damage throughout the basin in 1961, 1977, 1993 and 1998. The flood of July 1993 caused one fatality in Kansas City, Mo and damages estimated at $3.4 million in Merriam, Kansas, and $20 million in the lower basin areas. The flood of October 1998 caused damages in Merriam, Kansas estimated at $12.0 M, and damages in the lower basin equivalent to 1993. Frequent flooding of Turkey Creek has caused severe damage to structures, inventory, infrastructure and transportation access, and intangible costs such as human suffering and inconvenience. The flood damage has contributed to significant revenue losses during periods of flooding. The long-term consequences of flooding include threat of loss of life, increased frequency of structure and inventory damage, slowed economic growth, possible escalation of vacancies in the area; higher costs associated with repairing flood damage, and interrupted transportation access.

The basin flood problem spans multiple city and county jurisdictions, and state lines. A unique opportunity exists to focus on basin wide comprehensive measures, to alleviate flooding or prevent future intensification of the flooding problem. Potential measures for consideration include zoning, ordinances, flood warning, relocations, flood proofing, detention structures, and structural flood damage reduction measures. Environmentally compatible concepts could be proposed to improve the basin environment and water quality in Turkey Creek and tributaries. All local agencies are currently focused on Turkey Creek Basin problems and are expressing strong interest in developing a basin-wide, comprehensive, multi-jurisdictional approach. Federal agencies such as FEMA and EPA have also expressed a desire to cooperate in this effort.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2b. Flood Damage Prevention Studies: (continued)

KANSAS (continued)

Upper Turkey Creek, Merriam (continued)

A considerable body of current data is available from the study of flood damage reduction on the lower 3,900 feet of Turkey Creek, and from local agencies like Johnson County. This study would use available data on hydrologic conditions, basin development patterns, the basin environmental condition, and flood damageable property. Generalized estimates of costs and assessments of viability for potential measures basin-wide would be developed as a basis for selecting a plan to achieve the combined purposes of flood damage reduction and environmental restoration. The most recent expressions of interest and intent to cost-share the Feasibility phase of the study were received from the City of Merriam, Kansas, in a letters dated October 22, 2001, and from Johnson County, Kansas, and the Unified Government of Wyandotte County/Kansas City, Kansas, in letters dated September 19, 2001. These organizations all provided representation to the team formed to negotiate and execute the Feasibility Cost Sharing Agreement.

The funds requested for FY 2003 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $1,300,000, which is to be shared equally by Federal and non-Federal interests. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,400,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	650,000
Feasibility Phase (Non-Federal)	650,000

The reconnaissance phase is scheduled to complete in January 2002. The feasibility phase completion date is February 2006.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
MISSOURI					
Kansas Citys Kansas City District	3,750,000	1,472,000	415,000	400,000	1,463,000

The existing Kansas Citys, Missouri and Kansas Local Protection Project consist of seven units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area. These units were designed to protect intensely developed and heavily industrialized areas with a current estimated value of over $9 billion. In July 1993, floodwaters from both the Missouri and Kansas Rivers were within inches of overtopping several of the units and endangering life and the huge economic investment. People, equipment, and aircraft were evacuated from areas behind the units located at the confluence of the Missouri and Kansas Rivers due to fear of levee failure and overtopping. The project has prevented approximately $8.5 billion in damages through 1996 of which $3.9 billion were prevented in 1993 alone.

Based upon the 1993 flood, the original hydrologic and hydraulic design data are no longer valid. The original design assumed the existence of three lakes in the Kansas River Basin that were never constructed. In addition, actual water surface elevations for specific Missouri River discharges are substantially higher than design stage-discharge assumptions. An Initial Appraisal Report documenting the need for this restudy was completed in June 1995.

The local sponsors are the City of Kansas City, Missouri, the North Kansas City Drainage District, the Kaw Valley Drainage District, the Birmingham Drainage District, and the Fairfax Drainage District. Formal letters requesting a restudy of the completed project were received from the City of Kansas City, Missouri, and the Kaw Valley Drainage District following the 1993 flood. Kansas City, Missouri, in a letter dated 30 May 1995, expressed understanding that the Feasibility phase of the study would be cost shared equally by Federal and non-Federal interests. Local interests and the Missouri-Arkansas Basin Association solicited support from their Congressional delegations to initiate the study in Fiscal Year 1998. Congressional redirection of the reconnaissance study resulted in a traditional reconnaissance approach in which the phase was completed in August 2000. This study is authorized under Section 216 of the 1970 Flood Control Act.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2b. Flood Damage Prevention Studies: (continued)

MISSOURI (continued)

Kansas Citys (continued)

The preliminary estimated cost of the feasibility phase is $5,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,650,000
Reconnaissance Phase (Federal)	850,000
Feasibility Phase (Federal)	2,900,000
Feasibility Phase (Non-Federal)	2,900,000

The funds requested for FY 2003 will be used to continue feasibility phase, which is scheduled for completion September 2007.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
MISSOURI (continued)					
Wears Creek, Jefferson City Kansas City District	650,000	0	63,000	57,000	530,000

Wears Creek is a tributary of the Missouri River that empties into the Missouri River near Jefferson City, MO. In a study performed in response to Section 101(a) of the Water Resources Development Act of 1976 (Public Law 94-587), flood damage reduction along lower Wears Creek was not feasible because the floodplain had been cleared for urban renewal and flood damages were low. Upstream of the urban redevelopment area, low levels of damage also precluded identification of a feasible structural flood control plan.

Since completion of that report, conditions have changed in four significant parameters that collectively represent a reasonable likelihood that flood damage reduction would be in the national interest. First, based on Wears Creek and Missouri River hydrology in effect at the time, Jefferson City has developed on the fringe of the 100-year flood plain. These developments include 2 large state office buildings and a state health laboratory as part of the State Capitol Complex and a commercial hotel development. Second, new Missouri River hydrology documents an increased discharge-frequency relationship compared to previous calculations. The risk to the flood fringe development is now greater than a 1-percent-chance event than previously defined. Third, recent hydraulic evaluations indicate that the stage for the 1-percent-chance event is higher than that determined in the studies conducted in the mid-1970's, therefore damages would also be considered greater for the similar discharge event. Fourth, the change in risk associated with Missouri River flooding is further complicated by the changed risk of flood on Wears Creek coincident with high Missouri River stages. While all these factors affect the flood risk to development, they also affect the conditions on the developed and undeveloped green space in the lower Wears Creek basin and may present an opportunity for flood damage reduction coincident with environmental restoration in an urban setting. Application of modern risk and uncertainty analytical techniques in the Feasibility phase of study would integrate the data emerging on Missouri River hydrology and levee effects at the same time as the data were being released to characterize the current flood risk to downtown Jefferson City.

The flood of record in Wears Creek, Jefferson City, MO was the flood of 1993, which produced damages on both banks of the river estimated at more than $15 million. A separate figure for right-bank damages is not available, but considerable transportation interruption and property damage occurred there. The City of Jefferson corporate boundaries encompass both banks of the Wears Creek at this location. The City of Jefferson expressed interest in evaluating the flood risk in the Wears Creek downtown area by letter dated June 2, 1999 and understands the 50/50 cost sharing requirement of the feasibility phase. The reconnaissance phase is scheduled to be completed in February 2003, which is 12 months after initiating the study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2b. Flood Damage Prevention Studies: (continued)

MISSOURI (continued)

Wears Creek, Jefferson City (continued)

The study would be conducted under authorization provided by a resolution adopted by the Senate Committee on Public Works on May 9, 1963. This resolution provides for study of flood and related problems on tributaries of the Missouri River. A summary of the study cost sharing is as follows:

Total Estimated Study Cost:	$1,200,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	550,000
Feasibility Phase (Non-Federal)	550,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
NEBRASKA					
Lower Platte River and Tributaries, Nebraska Omaha District	2,869,000	2,045,000	346,000	139,000	339,000

The authorized study area is in the eastern third of the state of Nebraska. The area includes the Lower Platte River from just below the confluence with the Wood River to the confluence with the Missouri River, the Loup River from Fullerton to the confluence with the Lower Platte, Salt Creek from above Lincoln to the confluence with the Lower Platte, and the Elkhorn River from Norfolk to the confluence with the Lower Platte. There are two major and seven minor tributaries to the Platte River in the study reach, 27 communities, and several environmentally sensitive areas yielding a complex study. This area, about 750 square miles, with over 6,000 square miles of contributing area, is subject to frequent, severe flooding that causes estimated annual damages of nearly $14 million. Existing projects prevent about $6 million a year in damages. Significant flooding occurred 7-21 March 1993, forcing the evacuation of 1,400 people from their homes. The flood killed two people and devastated road and bridge systems, public and private utilities, and farm equipment and facilities. Interstate 80 near Lincoln was closed for more than 24 hours. The water system for the city of Lincoln was seriously damaged; and there was damage in the towns of Norfolk, West Point, Scribner, Winslow, Nickerson, Arlington, Waterloo, Fullerton, Columbus, Schuyler, and Cedar Creek. Damages totaled over $25 million. The declared disaster area included 14 counties. All damages occurred outside of the 13 existing flood protection projects in the basin. These projects prevented over $18 million in damages for this event alone, and prevented an additional $10 million in damages from the summer 1993 flooding.

The completed reconnaissance study reviewed hydrology of the Lower Platte River, including contributions from the Elkhorn and Loup Rivers; reexamined flood and related erosion and sedimentation damages, and formulated feasible alternative solutions. The Reconnaissance Report was completed in May 1996, recommending proceeding into the feasibility phase. The feasibility study was initiated with the signing of the Feasibility Cost Sharing Agreement in January 1998. Concurrence was received from HQUSACE to develop a scope of work that merges the Section 503 of WRDA 96, “Lower Platte River watershed, Nebraska,” with this study. Section 503 provides authority for technical, planning, and design assistance to non-Federal interests for carrying out watershed management, restoration, and development projects.

The State of Nebraska, the Nebraska Natural Resources Commission (NNRC), the Lower Platte South Natural Resources District (NRD), Papio-Missouri River NRD, and the Lower Platte North NRD are the cost sharing partners for the feasibility study and any resulting projects.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

NEBRASKA (continued)

Lower Platte River and Tributaries, (continued)

Fiscal Year 2002 funds are being used to continue the feasibility phase. Fiscal Year 2003 funds will also be used to continue the feasibility phase. The estimated cost of the feasibility phase is $4,426,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,082,000
Reconnaissance Phase (Federal)	656,000
Feasibility Phase (Federal)	2,213,000
Feasibility Phase (Non-Federal)	2,213,000

The reconnaissance phase was completed in January 1998. The feasibility study is scheduled for completion in September 2004

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
SOUTH DAKOTA					
Niobrara River and Missouri River, South Dakota and Nebraska Omaha District	450,000	158,000	142,000	100,000	50,000

The study area is along the lower Niobrara River in Nebraska and the Missouri River below Fort Randall Dam in South Dakota and Nebraska. The authorizing language requests a study of the Niobrara Watershed and the operation of the Corps projects, Fort Randall Dam and Gavins Point Dam. Sediment accumulation within Lewis and Clark Lake is a natural phenomenon and was predicted and accounted for in project storage allocations. However, this deposition is causing significant impacts on project purposes and lands adjacent to the project. These impacts include increased flood damage, increased ground water levels, municipal water supply damage and reduced recreational access to the lake. Decreased channel capacity and reservoir storage impacts the regulation of Gavins Point Dam and the power releases from Fort Randall Dam. This study is a portion of a major sedimentation issue in the upper Missouri River basin affecting a large geographic area in multiple states. Extensive Federal investment is directly related to the issues being addressed. The study is complicated by multiple customers; major technical issues; environmental sensitivity; conflicting interests of Federal, state and local government agencies and businesses and industry groups. Activities resulting from this study will be precedent setting in the basin and politically-charged.

The reconnaissance study will identify and define specific problems associated with bank erosion and sedimentation. Potential solutions will be identified. A scope of study for the feasibility phase would be developed, in cooperation with Federal, state, and local agencies. The reconnaissance phase effort will determine if a plan exists for evaluation in the feasibility phase and if a willing non-Federal sponsor exists. The study is authorized by Section 447 of the Water Resources Development Act of 1999.

Fiscal Year 2002 funds are being used to complete the reconnaissance phase and continue into the feasibility phase. The funds requested for Fiscal Year 2003 will be used to continue the feasibility phase of the study. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$700,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	250,000
Feasibility Phase (Non-Federal)	250,000

The reconnaissance phase is scheduled to be completed in July 2002. The feasibility study is scheduled for completion in September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2b. Flood Damage Prevention Studies: (continued)					
WASHINGTON					
Skagit River, WA Flood Damage Reduction/Ecosystem Restoration Seattle District	4,724,000	1,717,000	288,000	450,000	2,269,000

The Skagit River Basin is located in the northwest corner of the state of Washington. The entire floor of the Skagit River Valley, located in Skagit County, Washington comprise the flood plain and defines the study area. Since 1908, 100,000 cfs, the maximum safe channel capacity, has been exceeded 17 times. In November 1990, the previous flood of record, the flood peaked at 152,000 cfs (9.4 feet above flood stage) at the city of Mount Vernon (river mile 12). During the most recent severe flooding in late November 1995, the flood peaked at 159,000 cfs at Concrete, (a new record) and 135,000 cfs at Mount Vernon (9.3 feet above flood stage). Average annual flood damages total $67 million despite the fact that there are about 50 miles of existing levees in the study area.

At the request of Skagit County the Corps initiated another study to find a solution to the flooding problems in the basin. A Feasibility Cost Sharing Agreement (FCSA) was signed on 28 July 1997 with Skagit County. The current study is analyzing ring levees, overflow levees, and diversion channels. In addition, the study is also analyzing a variety of restoration features. The Skagit River has been identified by many as a prime location for substantial restoration of endangered salmonid species. Both the flooding issue and the potential for substantial restoration give this project high likelihood of successful implementation.

Fiscal Year 2003 funds will be used to continue the feasibility study, in particular the formulation of project alternatives and designs. The estimated cost of the feasibility phase is $8,322,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interest. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$8,885,000
Reconnaissance Phase (Federal)	563,000
Feasibility Phase (Federal)	4,161,000
Feasibility Phase (Non-Federal)	4,161,000

The reconnaissance phase was completed in July 1997. The feasibility phase completion date is June 2009.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2c. Shoreline Protection Studies: None.

2d. Special Studies: The amount of $ 2,305,000 is requested to continue ten studies.

OREGON					
Lower Columbia River Ecosystem Restoration, OR & WA Portland District	3,200,000	75,000	85,000	300,000	2,740,000

The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam; its estuary is classified nationally significant under the National Estuary Program (NEP). The river divides the states of Oregon and Washington throughout this area. The study area includes a 40-foot deep-draft federal navigation channel from the mouth to the Portland metropolitan area about RM 105 and a shallow draft channel upstream from that point. The Corps of Engineers' 125-year involvement with the Columbia system includes flood damage reduction, navigation, fish and wildlife, environmental restoration, hydropower, bank protection recreation and water supply improvements. Over time, this basin has experienced considerable changes in water resource needs and uses. In addition, significant environmental degradation has occurred within the lower Columbia system. Modification of the system by human activities has led to a marked change in the hydrologic regime, and caused pollution and substantial losses of instream, riparian and wetland habitats, and a concomitant reduction in fish and wildlife resources. Flood control, water quality, navigation, water-related infrastructure, and ecosystem restoration needs have all been evaluated on a case-by-case basis. To date, three salmonid species from this region have been listed under the Endangered Species Act (ESA) and two additional species are proposed for ESA protection. Such listings have broad implications to existing water resource uses, and future developments. Historic losses of 52,000 acres of wetland/marsh habitats, 13,800 acres of riparian forest habitat and 27,000 acres of forested wetland habitat downstream of Portland have significantly impacted this ecosystem's ability to produce and sustain fish and wildlife resources. Much of this wetland loss can be attributed to the 84,000 acres encompassed by diking districts and the 20,000-acre increase in urban development that has occurred along the lower Columbia River.

A comprehensive, long-range approach to address water resource problems and opportunities for the Lower Columbia River is needed. Some of the key areas to be addressed in this comprehensive study include structural and non-structural flood damage reduction measures, wetland/riparian habitat restoration and stream and fisheries habitat improvement. Water quality, navigation, water-related infrastructure, and other ecosystem and water uses will also be addressed as part of this comprehensive study. It is imperative that reversals of these impactive trends occur now before further growth causes irreparable impairment of current water uses and ecosystem functions, and while regional interest and financial support is high. This comprehensive watershed study would serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the Lower Columbia River Estuary Plan, six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens. The states of Washington and Oregon have agreed to jointly sponsor the study, and have written a letter of intent dated May 1998. Both states understand the cost sharing provisions associated with the feasibility phase study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

OREGON (continued)

Lower Columbia River Ecosystem Restoration (continued)

Fiscal Year 2002 funds will be used to continue the reconnaissance phase. Fiscal year 2003 funds will be used to complete the Recon phase and continue into the feasibility phase which, is scheduled for completion in September 2010.

The estimated cost of the feasibility phase is $6,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,200,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The study was authorized by a resolution of the Senate Committee on Environment and Public Works dated 28 June 2000.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
OREGON (continued)					
Tillamook Bay and Estuary Ecosystem Restoration, OR Portland District	1,860,000	1,174,000	379,000	266,000	41,000

Designated as a significant tidal estuary in the National Estuary Project and a component of the Oregon Coastal Salmon Restoration Initiative (Oregon Plan), Tillamook Bay and its watershed are economically and ecologically valuable for the state of Oregon. Tillamook Bay is located in Tillamook County in northwestern Oregon, about 70 miles west of Portland. Five rivers: the Miami, Kilchis, Wilson, Trask, and Tillamook, all rise in the coast range and flow into the bay. The lower valleys of these rivers merge to form a broad alluvial plain to the east and south of the bay on which the city of Tillamook is located.

Four problems in Tillamook Bay and watershed have been identified by the Tillamook Bay National Estuary Project (NEP): 1) bacterial and pathogenic contamination; 2) sedimentation which affects freshwater and saltwater flows and habitat for shellfish and fish; 3) significant habitat degradation which affects salmon and trout spawning, increases stream temperatures, and contributes to bay sedimentation; and 4) flooding, which affects both human and environmental values. In the Oregon Plan, the Tillamook Bay system has been identified as having poor freshwater habitat for native coastal salmon. Modeling shows that salmon populations may experience a higher risk of extinction because of this condition. In August 1998 coastal coho salmon were listed as threatened under the Endangered Species Act. Section 536 of the Water Resources Development Act of 2000 authorizes $30 million for implementation of NEP measures in Tillamook and the mouth of Columbia River.

Declared a Federal disaster area because of the February 1996 flood, Tillamook County suffered over $53 million in damage, which amounted to 148 percent of the county's annual budget. The county suffered significant public losses because of the tremendous disruption caused to Highway 101, the major North-South arterial along the coast. The lower portions of the rivers overflow frequently because channel capacity is inadequate to handle heavy flows during severe rainstorms when combined with high tides. The resulting flooding cut off access to Highway 101 and inundated residential, commercial, and pasture areas. No vehicular access was possible between the north and south portions of the county; emergency and service vehicles could not go north and ambulances could not get to the hospital on the southwest side of the city. Even during the 1998-99 flood season, which was considered relatively benign, damages due to flooding resulted in $5 million in the study area.

The reconnaissance phase was completed in August 1999. Key areas addressed in the reconnaissance report include opportunities to modify existing flood plain features, stream channels, and the estuary in order to restore natural wetlands, high value estuarine habitats, and coastal salmon habitats while reducing flood damages. Some of the measures to be considered include reconnecting wetland and flood plain areas with the rivers to absorb greater flood flows; channel modifications to restore flood capacity; restoring structural complexity in stream channels and the estuary; and riparian habitat development.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

OREGON (continued)

Tillamook Bay and Estuary Ecosystem Restoration (continued)

A Feasibility Cost Sharing Agreement was executed in July 1999 with Tillamook County Soil and Water Conservation District (TCSWCD). Tillamook County requested to become the formal sponsor, which TCSWCD agreed to on 17 February 2000. The feasibility study will analyze in detail problems and opportunities associated with flood damage reduction and ecosystem restoration within the study area. A sophisticated hydrodynamic model has been developed to formulate and evaluate alternatives. An Environmental Impact Statement (EIS) will be prepared in conjunction with the feasibility study.

Fiscal Year 2003 funds will be used to continue the feasibility phase of the study. The feasibility phase completion is scheduled for 28 April 2003. The estimated cost of the feasibility phase is $3,486,000, which will be shared on a 50-50 percent basis by the Corps and the Sponsor. Of the non-Federal share, $871,000 is in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,603,000
Reconnaissance Phase (Federal)	117,000
Feasibility Phase (Federal)	1,743,000
Feasibility Phase (Non-Federal)	1,743,000

The study was authorized by a resolution of the Senate Committee on Environment and Public Works dated 5 June 1997.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
OREGON (continued)					
Willamette River Environmental Dredging, OR Portland District	3,390,000	168,000	232,000	249,000	2,741,000

The Willamette River basin occupies a 12,000 square mile area in western Oregon. The 187-mile river begins in the Cascade and Coast Ranges and flows through local watersheds affected by logging, farming, and urban development before it empties into the Columbia River at Portland Oregon. From Willamette Falls at river mile 26.5 to the mouth at river mile 0, the river passes through the city of Portland where the waterfront is highly developed. Approximately 2 million people live within the lower Willamette River drainage from just above Willamette Falls to the river mouth. The lower Willamette River in Portland is also part of the Columbia and Lower Willamette Rivers federal navigation project. The project supports a thriving deep draft vessel shipping port in a regional economy where one in five jobs in the Portland/Vancouver area are related to export of grain, mineral resources or manufactured products. A yearly average of 7 million tons of grain is exported yearly through Portland, many through grain elevators on the Willamette River. The federal navigation project is maintained from river miles 0 to 14 and contributes to Portland being the tenth largest exporter in the nation. Petroleum products and mineral ores are the dominant imports at Willamette River facilities.

Industrial and urban activity in and along the waterway has adversely affected water and sediment quality. Degraded spawning and rearing and migratory habitats have contributed to declines of native populations of salmon, steelhead and trout. In March and April of 1999 the National Marine Fisheries Service (NMFS) listed five local fish populations as threatened under the Endangered Species Act, for the first time extending protection to populations in heavily urbanized areas within the Pacific Northwest. Two fish populations, the Lower Columbia River Chinook and Columbia River Chum salmon rear in urban streams. The Coastal Cutthroat spends much or all of their life in streams of the Columbia and lower Willamette up to Willamette Falls. Upper Willamette River Chinook and Steelhead rear and migrate through the lower Willamette River.

During the last few decades, much has been done to improve water quality in the river by reducing industrial and municipal point sources pollutant discharges. Efforts continue to remove water quality through eliminating combined sewer overflows and point and non-point pollution controls. Over the past few years the State of Oregon pursued cleanup of specific sites along the river that include impacted sediments.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

OREGON (continued)

Willamette River Environmental Dredging (continued)

In 1998 the state began a comprehensive management plan, the Portland Harbor Sediment Management Plan and subsequent sediment investigation work plan to investigate and potentially remediate sediments in a six-mile reach of the Portland Harbor using the State of Oregon Environmental Cleanup Law. In December 2000 the US Environmental Protection Agency chose to place the Portland Harbor on the National Priorities List under CERCLA, placing investigation of the harbor under joint management with the state but under a Federal lead. The state will be the lead agency for upland contaminant source control, and the EPA will be the lead for the project and in-water work.

The joint EPA investigation and cleanup project will identify and address site specific contaminant sources and clean up sediment contamination where sediment exceeded health based levels for the protection of human health and the environment. While these efforts represent a major step in the right direction, a significant opportunity exists for a cooperative venture to further leverage resources and focus on achieving restoration objectives through sediment remediation. Potential restoration measures could include dredging for in-stream water and sediment improvements, preventing contaminants from being released to the environment and navigation channel, developing alternatives for sound contaminated sediment management, and beneficial use of dredged material. Negotiations and coordination is necessary to allow a sediment remedy and ecosystem restoration under the Environmental Dredging authority. An Environmental Dredging project is intended to supplement remediation required under the state and federal cleanup authorities.

The Port of Portland is the local sponsor and responsible party within Portland Harbor, engaged in preparing a work plan to complete the CERCLA remedial investigation and feasibility study. The Port of Portland has provided a letter of intent to partner in this cooperative venture to address sediment contamination under both CERCLA and environmental dredging authorities. The Port understands the cost sharing requirements of the feasibility and implementation phases of the potential project and the requirements for polluter responsibility and liability. Stakeholders include the Port of Portland, the City of Portland, other state agencies including the Department of Environmental Quality, and Department of Fish and Wildlife. Further collaboration with NMFS, the Environmental Protection Agency, the U.S. Fish and Wildlife Service, and other federal agencies would also occur.

Although there are two major Corps projects within the lower Willamette River, the navigation channel and the potential deepening of the channel as part of the Columbia River Channel Improvements study, neither project addresses improvement to sediment and water quality which could be accomplished by dredging. Both projects could benefit from improvements to sediment quality.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

OREGON (continued)

Willamette River Environmental Dredging (continued)

The reconnaissance phase was initiated in November 1999 and completion is scheduled for 1 July 2002. The reconnaissance analysis was completed in December 2000 and the Project Study Plan will be completed concurrently with the work plan for the CERCLA remedial investigation, currently scheduled for June 2002.

The feasibility phase completion is scheduled for 30 September 2008. Fiscal Year 2002 funds will be used to complete the reconnaissance phase and continue into the feasibility phase of the study. Fiscal Year 2003 funds would be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $6,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,390,000
Reconnaissance Phase (Federal)	390,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The study was authorized by Section 312 of the Water Resources Development Act of 1990, as amended by Section 224 of the Water Resources Development Act of 1999.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
OREGON (continued)					
Willamette River Flood Plain Restoration, Portland District	1,590,000	185,000	107,000	150,000	1,148,000

After a thirty-year absence, major flooding became a real and powerful presence in February 1996 for the Willamette River Basin in Oregon. Flood frequencies ranged from a 2- to 200-year event. Twenty-three counties were declared disaster areas. Cities suffering major damage include Portland, Tualatin, Lake Oswego, Salem, Keizer, Oregon City as well as many other communities. Damages throughout the state are estimated in excess of $286 million dollars, including about $40 million in housing losses, $30 million in business losses, $28 million in agricultural losses, and $188 million in local government facility losses. The existing Willamette reservoir system only controls about 27 percent of the basin runoff. The 1996 flood emphasizes an urgent need for additional flood damage reduction measures for the Willamette Basin. Traditional measures, such as large storage projects, are no longer practical or environmentally feasible. The proposed flood plain restoration project assesses opportunities to modify existing flood plain features in the Willamette Valley to reduce flood damages while restoring natural wetlands and promoting ecosystem restoration.

A conceptual study to assess the hydrologic feasibility and benefits of restoring flood plains for natural flood management in the Willamette Valley was commissioned in 1995 by River Network, a national non-profit conservation group. Their study concluded that feasible flood plain restoration opportunities exist to reduce flood hazards to homes, public structures and farms while allowing for fish and wildlife habitat restoration. A restored flood plain would act to absorb excess flood waters, slow the velocity of flood waters, and create habitat for a wide variety of plants and animals, including fish species, such as bull trout and Willamette spring Chinook salmon, petitioned for ESA listing. Numerous Federal, state and local entities have expressed strong support for this effort. Following the major flood event in February 1996, FEMA officials strongly promoted this concept as a promising approach for flood hazard mitigation. The State of Oregon is fully supportive of the proposed study and project, and the Governor's office is working with local groups to identify the appropriate state agency as the non-Federal sponsor. Environmental organizations, such as Oregon Trout and Ducks Unlimited, have expressed support and interest in the project. The flood plain restoration concept was favorably received when presented in local newspapers.

There is a high level of regional interest and financial support for flood damage reduction and ecosystem restoration measures. This flood plain restoration project offers an excellent opportunity to provide additional flood protection for the Willamette Basin through non-structural floodplain restoration measures. The proposed study and project focus on priority benefits of flood damage reduction and ecosystem restoration. The successful implementation of this project would encourage further private and public partnerships in the region in the prudent and beneficial uses of flood plains.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

OREGON (continued)

Willamette River Flood Plain Restoration, OR (continued)

The reconnaissance phase was initiated in April 1998 and is scheduled for completion in December 2002. The Reconnaissance Report (Section 905(b) Analysis) was approved by CENWD in June 1999. Work is continuing on preparation of the Project Study Plan and Feasibility Cost Sharing Agreement. The feasibility phase completion is scheduled for 31 March 2006.

Fiscal Year 2003 funds will be used to complete the reconnaissance phase and initiate the Phase I feasibility study. The District is proposing taking a phased approach to feasibility studies. The first phase would use a comprehensive framework study of the entire Willamette Basin to be followed by sub-basin or reach specific feasibility studies in Phase II. The estimated cost of Phase I is $2,730,000, which will be shared on a 50-50 basis by the Corps and the non-Federal sponsor. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,955,000
Reconnaissance Phase (Federal)	225,000
Feasibility Phase (Federal)	1,365,000
Feasibility Phase (Non-Federal)	1,365,000

The study was authorized by a resolution of the House Committee on Public Works and Transportation dated 8 September 1988.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
WASHINGTON					
Bellingham Bay Navigation/Ecosystem Restoration Seattle District	159,000	100,000	9,000	50,000	0

Bellingham Bay is located in northern Puget Sound, approximately 100 miles north of Seattle, in Whatcom county Washington. A coalition of state agencies, tribes, federal agencies, and the Port of Bellingham have developed a comprehensive demonstration project, titled the Bellingham Bay Pilot Project, to address dredging, environmental cleanup, and ecosystem restoration in the bay and watershed. The bay and surrounding environment have changed radically in the past 100 years. Loss of intertidal shoreline areas, loss of habitat and species diversity, degradation of water quality and sediment contamination has significantly impacted the bay and the watershed draining into it. The Corps study will evaluate the feasibility for Federal implementation of specific Bellingham Bay Pilot Project features including deepening of an existing Corps navigational project, environmental dredging of contaminated sediments, and ecosystem restoration of estuary and its tributaries. The Corps study will complement the efforts of many other regional activities such as restoration of endangered species and the cleanup of contaminated sediments.

Fiscal Year 2002 funding will be used to continue into the feasibility phase and execute an FCSA.

A summary of study cost sharing is as follows:

Total Estimated Study Cost	$218,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	59,000
Feasibility Phase (Non-Federal)	59,000

The reconnaissance phase is scheduled for completion in June 2002. The feasibility phase completion date has not yet been determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
WASHINGTON (continued)					
Chehalis River Basin, WA Flood Damage Reduction & Ecosystem Restoration Seattle District	2,650,000	152,000	157,000	250,000	2,091,000

The Chehalis River Basin is located in central western Washington and includes portions of Grays Harbor, Thurston, and Lewis Counties about 80 miles south of Seattle. The Chehalis River rises in the southern Cascade Mountains and empties into Grays Harbor and the Pacific Ocean.

This study will evaluate flood reduction and ecosystem restoration measures for the entire Chehalis River basin, except for the Centralia Chehalis urban area that is being considered in the PED work for the Chehalis River at Centralia project. Watershed analysis is very important to state and local agencies and is considered essential to meeting the needs of the basin governments to address issues raised by recent ESA listings.

Note that requested funding for this study is separate from the Chehalis River at Centralia project.

Flood damage reduction and ecosystem restoration are consistent with Administration policy. Authorization is Resolution # 2581, adopted 9 Oct 98, of the House Committee on Infrastructure and Transportation.

Fiscal Year 2002 and 2003 funding will be used to continue the feasibility phase.

Total Estimated Study Cost	$5,150,000
Reconnaissance Phase (Federal)	150,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase was completed in Aug 2001. The estimated feasibility completion date is Sep 2008.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
WASHINGTON (continued)					
Commencement Bay/ Hylebos Waterway, WA Navigation & Ecosystem Restoration Seattle District	2,600,000	0	30,000	200,000	2,370,000

Commencement Bay is located in southern Puget Sound, approximately 30 miles south of Seattle, in Pierce county Washington. A wide range of local, state, Federal and Tribal agencies have identified Commencement Bay as a key area for environmental restoration in the Puget Sound Region. The bay and surrounding environment have changed radically in the past 100 years. Loss of intertidal shoreline areas, loss of habitat and species diversity, degradation of water quality and sediment contamination has significantly impacted the bay and the watershed draining into it.

Commencement Bay and the Hylebos waterway have seen much recent effort to clean-up contaminants and to restore environment. Hylebos Creek, which flows into the Hylebos Waterway has long been the target of many restoration efforts. Unfortunately, the previous restoration efforts have not been able to address an area of critical importance, the estuary. The importance of the Commencement Bay/Hylebos Waterway project lies in the fact that the estuarine environment in Commencement Bay is almost completely non-existent. Several studies in the Puget Sound region have identified estuaries as one of the most important environments in the life cycle of salmon. With the recent ESA listing of several Puget Sound salmon runs, it is critical to perform restoration in the region of estuaries wherever possible. A key justification for many projects is its connection with other on-going efforts. There is much support by local, state, and Federal governments and agencies for both navigation and ecosystem restoration projects, both of which are seen to provide substantial economic and social benefits to the region.

Recent efforts by the Port of Tacoma for Port expansion have shown the high priority for navigation projects in Commencement Bay. The Corps recently completed the deepening of a different Port of Tacoma waterway, the Blair Waterway, and is currently investigating the potential for channel widening as well. The Port is a very strong proponent for these past projects, and has been willing, able, and perhaps even ecstatic, about being the non-Federal sponsor. With the Port as a potential local sponsor, there is tremendous potential for successful implementation of this project.

This reconnaissance study will evaluate the Federal interest of implementing a project under environmental dredging, operation and maintenance, or ecosystem restoration authorities. Studies supporting navigation and ecosystem restoration are consistent with administration policy.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

WASHINGTON (continued)

Commencement Bay (continued)

Fiscal Year 2002 funding will be used to continue the reconnaissance phase with the goals of 1) identifying problems and opportunities, 2) verifying a Federal interest, 3) describing the scope and cost of detailed studies in the feasibility phase and 4) determining the interest and capability of a non-federal sponsor. This will include preparation of a Feasibility Cost Sharing Agreement, and Project Management Plan. The reconnaissance phase is scheduled for completion in Feb 2003. Fiscal Year 2003 funds will be used to initiate the feasibility phase study and is scheduled for completion in Sep 2011.

A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

Authority for the study is Section 209 of the Flood Control Act of 1962 (PL 84-874).

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
WASHINGTON (continued)					
Puget Sound Nearshore Marine Habitat Restoration, Ecosystem Restoration Seattle District	6,125,000	127,000	126,000	250,000	5,622,000

Puget Sound Nearshore study area is located in and around the waters of Puget Sound and adjacent to the shores of Pierce, King, and Snohomish Counties, in western Washington State.

The study purpose is to evaluate fisheries ecosystem restoration within Puget Sound. This would complement plans and measures being conducted by the counties. This study is strongly supported by multiple local, state, and Federal agencies, and would be part of an ongoing effort to restore and improve anadromous fish habitat throughout Puget Sound, especially following the eight species of salmon Endangered Species Act listings of March 1999. The entire Puget Sound shoreline has been degraded. There has been extensive elimination of important intertidal, estuarian habitat and significant degredation of small perennial streams that flow into Puget Sound. Over the past 100 years, more than 95% of the original shallow water habitat has been lost.

Studies supporting Endangered Species Act listings and ecosystem restoration are consistent with administration policy. Authorization is Section 209 of the Flood Control Act of 1962 (PL 84-874)

The reconnaissance phase was completed in September 2001. Fiscal Year 2003 funding would be used to continue into the feasibility phase. The feasibility phase is scheduled for completion in September 2011.

A summary of study cost sharing is as follow:

Total Estimated Study Cost	$12,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	6,000,000
Feasibility Phase (Non-Federal)	6,000,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
WASHINGTON (continued)					
Walla Walla River Watershed, OR & WA (Columbia River Basin) Walla Walla District	2,883,000	473,000	400,000	390,000	1,620,000

The Walla Walla River is a tributary of the Columbia River. It is located in southeastern Washington and northeastern Oregon in Walla Walla, Columbia, and Umatilla Counties. Much local interest has been focused on this river from private irrigated agricultural, grazing and logging interests, local irrigation and soil conservation Districts, planning commissions from both counties, Washington and Oregon Departments of Fish and Wildlife, the Confederated Tribes of the Umatilla Indian Reservation, U.S. Fish and Wildlife Service, and USDA Natural Resource Conservation Service. Of primary concern in the basin is water supply and water quality for municipal and industrial needs, irrigated agriculture, and perhaps, most importantly, sustaining and restoring anadromous fisheries. The basin presently supports a hatchery steelhead fishery and once supported Chinook and Coho salmon. Devising ways to enhance spawning habitat and thus increase natural production of salmonids would prove extremely beneficial to the region. Two fish species in the basin, bull trout and steelhead, are listed under the ESA. Sections of the Walla Walla River and Mill Creek dry-up during the summer irrigation season. The study effort in this basin would be to restore instream flows, looking at four different methods: 1) headwater storage, 2) water exchange with the Columbia River, 3) Irrigation efficiency (in both delivery and application), 4) purchase of water rights from willing sellers. Currently, the potential project sponsor is the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) for the restoration of instream flows.

Fiscal Year 2002 funds are being used to continue the negotiations on the Project Management Plan with CTUIR and sign the Feasibility Cost Sharing Agreement. Fiscal Year 2003 funds will be used to conduct feasibility level studies. The preliminary estimated cost of the feasibility phase is $4,828,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. All of the non-Federal share may be in-kind services. A summary of the study cost-sharing is as follows:

Total Estimated Study Cost	$5,297,000
Reconnaissance Phase (Federal)	469,000
Feasibility Phase (Federal)	2,414,000
Feasibility Phase (non-Federal)	2,414,000

The reconnaissance phase was completed in 1997. The feasibility study is scheduled for completion in September 2009.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2d. Special Studies: (continued)					
WASHINGTON (continued)					
White River, Flood Damage Reduction and Ecosystem Restoration Seattle District	2,600,000	0	30,000	200,000	2,370,000

Mud Mountain Dam (MMD) is located at river mile 29.6 on the White River, 6 miles upstream and southeast of Enumclaw, and 38 miles southeast of Tacoma in western Washington. The lower reach of the White River, downstream of MMD, is a rural area experiencing rapid transition to suburban residential communities. A geographic focal point for growth has been the artificially enlarged Lake Tapps. Lake Tapps was modified at the turn of the 20th century from four small natural lakes to one large lake acting as a hydropower reservoir owned and operated by a private corporation, currently known as Puget Sound Energy, Inc (PSE). A diversion dam, 6 miles downstream from MMD, and flume direct flows to the lake from the White River. Currently 4000 households live on the lake front, the lake is the state's fourth largest in recreation uses, and five cities and Pierce County are directly affected by the lake resources such as recreation and aquifer recharge for potable water consumption.

In the White River 1996 flood of record, PSE, at the Corps of Engineers' request, voluntarily ceased hydropower generation while continuing maximum flow diversion. Their contribution of off-site flood storage at the flood peak assisted the Corps in preventing levee failure on the White River and the more populated lower reach of the Puyallup River.

An associated issue is the method the Corps uses to provide migratory fish passage around MMD. Migratory fish have been live trapped at the Buckley Fish Trap since 1948 where they are trucked and released upstream of MMD dam. The Corps owned fish trap is integral to the PSE structure that diverts water to Lake Tapps. The Corps has a perpetual easement and contract with PSE to permit the Corps to operate the fish trap associated with Mud Mountain Dam until PSE ceases to operate their facilities. Two species routinely captured in the trap, Bull Trout and Puget Sound Chinook have been listed in accordance with the Endangered Species Act.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2d. Special Studies: (continued)

WASHINGTON (continued)

White River, (continued)

The reconnaissance study will determine the primary federal water resource issues in the lower reach of the White River. Issues likely to be determined include flood control (flood routing and sustaining channel capacity), Native American Trust (Muckleshoot Tribe issues, possibly involving the Puget Sound Chinook Hatchery Operations), endangered species preservation (Bulltrout and Chinook) and eco-system restoration. Also, the study will outline possible alternatives to examine during the feasibility study. A local sponsor, likely to be Pierce County or the State of Washington, will be established before initiating the feasibility study. Authority for the study is Section 209 of the Flood Control Act of 1962 (PL84-874).

Fiscal Year 2003 funds will be used to complete the reconnaissance phase and continue into the feasibility phase.

Total Estimated Study Cost	$5,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase is scheduled for completion in Feb 2003. The estimated feasibility phase completion date is Sep 2011.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2e. Comprehensive Studies: An amount of $ 500,000 is requested to continue three studies.					
MONTANA					
Yellowstone River Corridor, Omaha District	1,620,000	70,000	205,000	300,000	1,045,000

An interagency study of the Yellowstone River corridor from Gardiner, Montana, to the confluence of the Missouri River to determine the hydrologic, biological and socioeconomic cumulative impacts as authorized by Section 431 of Water Resources Development Act of 1999. The Yellowstone River corridor, defined linearly as approximately 600 river miles in Montana and North Dakota and laterally from the channel as the upper riverine terrace formed from historic fluvial processes, has been subject to natural and human interactive factors affecting ecosystem health and recovery. Flooding in 1996 and 1997 caused damage to private landowners and public facilities with a subsequent increase in regulatory actions under Section 10 of the Rivers and Harbors Act/Section 404 of the Clean Water Act as well as Corps of Engineers emergency technical assistance. Given the natural and historic heritage of this river corridor, issues regarding the long term effects of bank stabilization and the potential for significant adverse cumulative impacts have been raised by public and private sector and environmental interests. In contrast, issues regarding an individuals right to protect property and more local control of floodplain/riverine activities have been evident from the landowner and local government interest groups. The primary goal of this study is to develop a set of publicly supported river corridor management recommendations that address effects of channel modifications on the human community and riparian ecosystem along the Yellowstone River corridor. The corridor study will be used to develop 1) the formulation of management and protection objectives; 2) evaluate trade-offs among objectives; 3) use environmental impacts as a factor in determining the acceptability of management objectives as contrasted with potential long-term riparian deterioration. The study will also determine the advisability of Corps participation in environmental restoration and flood damage reduction projects along the Yellowstone River.

The Upper Yellowstone River Study was directed by the FY 99 Energy and Water Development Appropriation Regulatory Program Senate Report 105-206. This special area management plan study from Gardiner to Springdale, MT, a reach of about 85 miles, is assessing the long-term effects of streambank stabilization. The proposed study would incorporate and expand the existing Upper Yellowstone River technical studies to the remainder of the riparian corridor. The Upper Yellowstone Study should be finalized prior to completion of the entire corridor study. The ongoing Upper Yellowstone study design involves a comparison of altered vs. unaltered reaches in terms of hydraulics/channel geomorphology, cottonwood recruitment, fish and wildlife utilization as well as socioeconomic analyses.

For the remaining 515 miles of the corridor, a less detailed comparative analysis would be conducted. The remaining corridor would be subdivided into similar hydrogeomorphic reaches and comparative analyses of altered vs. unaltered reaches conducted. These sub-corridor analyses would form the basis for formulation of management and protection objectives in concert with the local public/ private sector interest groups. Sites within each sub-corridor would be identified for analysis of environmental restoration and flood damage abatement measures. Two sites are currently under consideration; Glendive and Forsyth.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2e. Comprehensive Studies: (continued)

MONTANA (continued)

Yellowstone River Corridor, (continued)

Fiscal year 2002 funds are being used to fund the reconnaissance phase at full Federal expense, and continue into the feasibility phase of the study. Fiscal year 2003 funds will be used to conduct feasibility level studies. The preliminary estimated cost of the feasibility phase is $2,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,020,000
Reconnaissance Phase (Federal)	220,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

In accordance with Section 431 of P. L. 106-53, this study is to be performed in consultation with the United States Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Natural Resources Conservation Service (NRCS), and with full participation of the State of Montana, tribal and local entities; and provide for public participation. Funding for the consultation efforts of the USFWS, USGS, and NRCS during the study should be obtained by each respective agency.

The reconnaissance phase is scheduled for completion in September 2002. The feasibility study is scheduled for completion in September 2005.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2e. Comprehensive Studies: (continued)					
OREGON					
Amazon Creek, OR (Eugene-Springfield) Portland District	1,100,000	0	63	100,000	937,000

The Cities of Eugene and Springfield are located in Lane County, Oregon at the upper end of the Willamette Valley at the junction of several rivers; the McKenzie, the Middle Fork of the Willamette, the Cost Fork of the Willamette, the Willamette River Main Stem, and Amazon Creek, a major tributary to the Long Tom River. Lane County covers an area of approximately 4,620 square miles. From the Pacific Ocean to the Cascade Mountains, Lane County is larger than Delaware and Rhode Island combined. Although 90 percent of Lane County is forestland, Eugene and Springfield comprise the second largest urban area in Oregon after Portland. Lane County has a population of approximately 315,700 residents with about 130,000 residing in Eugene and 51,700 located in Springfield.

The Cities of Eugene and Springfield are dedicated to making their communities a more livable place. Protecting and restoring the water resources for multiple use and values is critical to maintaining and improving the economic and environmental health of the county. There are many water resource issues that can be addressed with this study including, but not limited to, flood damage reduction, environmental restoration, water quality, endangered species conservation, watershed protection, and waterway improvements. The Study was authorized by the Resolution of the House Committee of Public Works for the Willamette Basin Review Study dated 8 September 1988.

Fiscal Year 2002 funds are being used to initiate the reconnaissance phase at full Federal Expense. Funds in the FY 2003 will be used to complete the reconnaissance phase and continue into the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests.

A summary of the study cost sharing is as follows:

Total Estimated Study Cost:	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion by April 2003. The Feasibility study is scheduled for completion in April 2005.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2e. Comprehensive Studies: (continued)					
OREGON (continued)					
Willamette River Basin Review, Portland District	2,284,000	1,848,000	18,000	100,000	318,000

Willamette River Basin, containing an area of approximately 12,000 square miles, is located in northwestern Oregon. As the most populated area in Oregon, the basin is highly developed. Many miles of levees and channel improvements have been constructed for flood protection. During the last 40 years, 13 Corps reservoirs have been constructed to control floods, generate power, and provide water for navigation and irrigation. Present problems include flood damages, which are still considerable; fish and wildlife conservation; municipal and industrial water supply; and development of additional recreation opportunities. In addition, projected irrigation development in the basin has not materialized at the rate previously envisioned, leaving considerable un-contracted water available for other vendible purposes.

Local interests seek a re-examination of Corps reservoirs with a view toward authorizing additional project purposes and modifying reservoir operation. The State of Oregon has expressed strong support for the study because of its desire to implement a new Comprehensive Management Plan for the basin. A Feasibility Cost Sharing Agreement (FCSA) was executed on 31 May 1996 with the State of Oregon. The feasibility study will determine if modifying the operation and storage allocation of the existing Corps system of 13 reservoir projects would better serve current and anticipated future water resource needs.

The current high priority issue in the Willamette Basin is the March 1999 listing by National Marine Fisheries Service (NMFS) of three species of anadromous fish as either threatened or as a candidate for listing under the Endangered Species Act (ESA). These fish include the Upper Willamette River Chinook Salmon, the Upper Willamette River Steelhead, and the Coastal Cutthroat (as a potential candidate). NMFS specifically states in the Federal Register (Vol. 64. No. 57, March 25, 1999) that habitat blockage and habitat degradation have probably adversely affected fish within the basin.

In accordance with Section 7 of ESA, the Corps completed a Biological Assessment (BA) in April 2000 addressing the impacts of operation of the Willamette reservoirs on the listed species. The final BA concluded that the reservoirs adversely affect listed species. In response, NMFS and USFWS are preparing a joint Biological Opinion (BO) recommending "reasonable and prudent actions" the Corps should undertake to prevent further take of listed species and support their recovery. The draft BO concluded that the continued operation of the Willamette reservoirs jeopardize the survival of Federally listed species in the basin. NMFS and USFWS are expected to recommend significant actions to modify structures and operation of the existing Corps Willamette projects.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

2e. Comprehensive Studies: (continued)

OREGON (continued)

Willamette River Basin Review, (continued)

Expected recommendations include, but are not limited to, improvement of fish passage, temperature control facilities, upstream and downstream habitat restoration, and flow augmentation. The final BO is scheduled for completion in October 2002.

Because of the direct relationship between reservoir operations and fisheries, we believe it will be necessary to rescope the study to address NMFS' recommended actions at the time the BO is completed. Development of final study alternatives for operation of the Willamette Reservoirs has been delayed. The study team and non-federal sponsors do not believe it is possible to establish these alternatives until after operating requirements for listed fish species have been clearly established. Study objectives previously described under the Project Management Plan and agreed to with the non-federal sponsor will be completed.

The reconnaissance phase of the study was completed in May 1996. The feasibility study completion is 31 July 2004. Fiscal Year 2002 and 2003 funds will be used to continue the feasibility study. The estimated cost of the feasibility phase is $2,900,000, which is shared on a 50-50 percent basis by the Corps and the non-Federal sponsor. Of the non-Federal share, $361,000 will be in-kind services.

A current summary of study cost sharing is as follows:

Total Estimated Study Cost:	$3,734,000
Reconnaissance Phase:	834,000
Feasibility Phase:	1,450,000
Feasibility Phase (Non-Federal):	1,450,000

The study was authorized by a resolution of the House Committee on Public Works and Transportation dated 8 September 1988.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2f. Review of Authorized Projects: An amount of $ 875,000 is requested to continue four studies.					
COLORADO					
Chatfield, Cherry Creek, and Bear Creek Reservoirs, Omaha District	1,350,000	723,000	157,000	200,000	270,000

The study area includes the three Corps of Engineers' projects (Tri-Lakes) located in the Denver metropolitan area. The study area also includes the South Platte and Platte Rivers downstream from the Corps' projects, because of the potential impacts that may be identified during the study. The study will examine the potential for reassigning storage in the reservoirs to joint uses, including flood control and conservation, fishery habitat protection and enhancement, municipal and industrial water supply, and recreation. The study will also examine the potential to use reallocated storage to assure a water source for the numerous environmental restoration projects being undertaken or envisioned, due to the interest in environmental restoration in the South Platte River floodplain downstream from the projects. The majority of the study effort will focus on the Chatfield project. The impacts of reassigning storage will be identified and included in the reallocation costs that would be assigned to the project sponsor.

In the reallocation study, a range of storage values and operational criteria will be selected and examined to determine the impacts in and downstream from the reservoirs. The major potential impacts that will be examined include downstream impacts on flood protection and fish and wildlife (particularly on Threatened and Endangered species in Nebraska), recreation and water quality on the projects.

Fiscal Year 2002 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2003 will also be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,600,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase was completed in October 1999. The feasibility study is scheduled for completion in September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2f. Review of Authorized Projects (continued)					
KANSAS					
Topeka Kansas City District	1,287,000	953,000	50,000	125,000	159, 000

Construction of a flood protection project at Topeka was completed in Fiscal Year 1974 at a total Federal cost of $21,175,000. The project has prevented an estimated $229,280,000 in flood damages through December 1994, with an estimated $57,792,000 prevented in July and August 1993.

Hydraulic analysis by the State of Kansas Department of Transportation and the Corps of Engineers indicates that significant portions of the existing levee system at Topeka are inadequate to protect against the design frequency flood event at the time of levee construction. Concerns include changes in the Kansas River and the fact that a number of upstream flood control lakes, assumed to be in place when design discharges were being determined, were never constructed. The direct impact to Topeka is that uncontrolled flood discharges and stages are greater than originally envisioned, and the level of protection at Topeka is correspondingly lessened. The growing industrial/commercial and residential development protected by the levee system is estimated to have a total value of several billion dollars. Failure of the levee system by overtopping could result in millions of dollars in damages and the loss of life.

The reconnaissance report, completed in September 1997 and certified in May 1998, recommended that a feasibility study be conducted based on the potential federal interest in project modifications. The reconnaissance phase was completed with execution of the FCSA in July 1998. The feasibility study was initiated in August 1998.

The funds requested for FY 2003 will be used to continue the feasibility study. The estimated cost of the feasibility phase is $1,900,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. In-kind services estimated by the sponsor total $50,000. A summary of cost sharing is as follows:

Total Estimated Study Cost	$2,237,000
Reconnaissance Phase (Federal)	337,000
Feasibility Phase (Federal)	950,000
Feasibility Phase (Non-Federal)	950,000

The feasibility phase completion date is April 2005.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2f. Review of Authorized Projects (continued)					
MISSOURI					
Missouri River Levee System, Units L455 and R460-471 Kansas City District	1,570,000	1,126,000	113,000	100,000	231,000

Missouri River Levee System, Units L455 and R460-471 were authorized as part of a comprehensive plan in the Flood Control Act of 1944. Construction of Unit L455 was completed in 1967 at a cost of $4.7 million, and construction of Unit R460-471 was completed in 1968 at a cost of $3.9 million. The two levee units are located on opposite banks of the Missouri River in and near St. Joseph, Missouri. These two levee units were designed and constructed to provide flood protection for a Missouri River flow of 325,000 cubic feet per second with 2 feet of freeboard. Flood flows crested on 26 July 1993 at an estimated 335,000 cubic feet per second. The main stem flood control lakes constructed by the Corps upstream of the area lowered the river stage approximately 2.7 feet. Unit L455 protected 7,500 acres of industrial, residential, and farmland preventing approximately $176 million in damages; but flood waters were inches from overtopping the levee. Overtopping would have caused catastrophic damages to an industrial area with estimated assets of $1 billion and an annual payroll in excess of $50 million. Unit R460-471 was constructed to protect Elwood and Wathena, Kansas, Rosecrans Memorial Airport and Air National Guard Base in Missouri, and 10,800 acres of farmland. This unit failed due to overtopping during the 1993 flood causing over $97.5 million in damages.

The reconnaissance study found Federal interest in a number of measures to increase flood protection. Structural measures were feasible for L455 and for R460-471. Potential measures include raising existing levees and improvement in seepage control. The study of Unit L455 was requested by the South St. Joseph Drainage and Levee District and the St. Joseph Area Chamber of Commerce in letters dated 14 and 21 April 1994, respectively. The levee district's letter indicated an understanding of the cost sharing requirements. Letters requesting a study of Unit R460-471 were received from the city of Elwood, Kansas, dated 21 April 1994; the city of Wathena, Kansas, dated 18 April 1994; and the Elwood-Gladden Drainage District dated 31 May 1994. The drainage district's letter indicated an understanding of cost sharing requirements. The funds requested for FY 2003 will be used to continue the feasibility study.

The estimated cost of the feasibility phase is $1,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one-half of the non-Federal share may be in-kind services. The feasibility phase completion date is September 2005. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,270,000
Reconnaissance Phase (Federal)	870,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
2f. Review of Authorized Projects (continued)					
WASHINGTON					
Lake Washington Ship Canal, Water Conservation/Ecosystem Restoration Seattle District	4,986,000	1,851,000	695,000	450,000	1,990,000

The Lake Washington Basin is located in and around Seattle, Washington and includes Lake Washington, Lake Sammamish, the Cedar River, and tributaries. The basin is a critical source of salmon production in the Northwest. Lake Washington has the largest sockeye salmon run in the continental United States. In March 1999 Puget Sound stocks of Chinook salmon were listed as a threatened species under the Endangered Species Act. The purpose of this study is to evaluate ways to improve salmon survival in the basin. The Lake Washington Ship Canal and Hiram A. Chittenden Locks, Seattle, WA, is an 8-mile canal with a double lock and fixed dam with gated spillways between Puget Sound and Lake Washington. It is a key point through which all Lake Washington salmon, both adult and juvenile, must migrate. In 1990 the City of Seattle asked the Corps to evaluate conserving water at the locks so Seattle could divert more water from the Cedar River. This study went inactive in 1992 because of water rights issues. The reconnaissance study was resumed in 1997 at the request of King County and Seattle to consider water conservation at the locks to improve salmon passage, along with other environmental restoration projects, primarily for salmon. These include modifications to a major hatchery, and the enhancement of historical spawning and rearing areas throughout the basin. Both King County and City of Seattle are actively participating in ongoing scooping and analyses of needs.

Fiscal Year 2003 funds will be used to continue the feasibility study. The signed FCSA depicts the cost of the feasibility phase as $9,503,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests, up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$9,503,000
Reconnaissance Phase (Federal)	469,000
Feasibility Phase (Federal)	4,517,000
Feasibility Phase (Non-Federal)	4,517,000

The Reconnaissance Phase was completed in May 1999. The Feasibility Phase is scheduled for completion in September 2008.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

3. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – NEW: None

4. PRECONSTRUCTION ENGINEERING AND DESIGN (PED) – CONTINUING:

4.a Watershed/Ecosystem: The amount of $ 675,000 is requested to continue PED on four projects.

COLORADO					
Zuni and Sun Valley Reaches, South Platte River, Denver County Omaha District	450,000	0	79,000	200,000	171,000

The South Platte River flows 10.5 miles through Denver. In this reach, 300,000 people live within 1-mile of the river's banks. The river has been modified, channelized, and used as a waste disposal site over the last 100 years as metropolitan Denver grew up along the banks of the South Platte River. During the 1970's, Denver's attitude about its river began to change and in recent years extensive restoration has been underway. The emphasis is currently on the Upper Central Platte Valley reach which extends for one mile from 8th Avenue to I-25, and is bounded by industrial and residential land uses. The area is immediately west of Denver's downtown.

The project includes removal of an in-stream dam that is a source of cooling water for the Zuni power plant and includes replacement of water supply facilities. Removal of the dam is key to the river restoration project because it enables channel and stream bank restoration in the reach. This includes riverine, wetland, and terrestrial habitat development, development of a meandering low flow channel, recreational features, improved water quality and reduced flood stages. The river's banks are steep, impairing wildlife habitat development and making human access difficult. Much of the vegetation is non-native and in poor condition. Improving the corridor in this stretch for wildlife, flood damage reduction, and recreational purposes has been under consideration for many years.

Low-income housing and industrial areas are within the limits of the 100-year flood. Pressure to further develop in the flood plain continues. Though the primary purpose of the project is ecosystem restoration, reduction of flood damages through structural and non-structural means is also a goal. Strong flood plain regulation is in place to avoid the creation of any new flood hazards. Past studies have indicated that structural flood control is not economically feasible based solely on flood damage reduction benefits. Cost-effective non-structural and limited structural flood control are being considered as a component of the overall restoration plan. Recreation development is also anticipated.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

4.a Watershed/Ecosystem: (continued)

COLORADO (continued)

Zuni and Sun Valley Reaches, (continued)

In 1995, the mayor established the South Platte River Commission (SPRC) which is taking the lead in implementation of the South Platte River restoration. The SPRC represents federal, state, and city agencies, and private and non-profit organizations with environmental, wildlife, recreation, education, and business interests in the river. There is a strong local investment committed to the restoration of the river. To date, $47 million has been spent on South Platte River improvements by local government, non-profit, and private sources. Obviously, the extent of local commitment to restoration of the river is extremely high. An extensive local network supports the efforts. Local leadership from the City comes directly from Mayor Webb. Other strong local partners include Urban Drainage and Flood Control District, the Greenway Foundation, South Suburban Park and Recreation District, County of Denver, City of Englewood, City of Littleton, Town of Columbine Valley, Public Service of Colorado, Downtown Denver Partnership, Inc., Gates Family Foundation, Colorado's Ocean Journey, Audubon Society of Greater Denver, Sierra Club Rocky Mountain Chapter and others. The State of Colorado is involved and supportive. There is no opposition to this project. Federal agencies supporting the restoration planning and implementation are: Environmental Protection Agency (clean up of brownfields, water quality, etc.), Federal Emergency Management Agency (flood plain regulation, flood hazard mitigation), United States Fish and Wildlife Service (Wildlife restoration), Forest Service, and National Park Service. Twenty-one letters of support for Corps involvement in the South Platte River restoration have been provided by a wide range of involved local, State, Federal agencies, private companies, and public interest groups. The Chatfield Dam is located on the South Platte River at the upstream end of the Arapahoe study reach. Chatfield Dam, which includes 235,000 acre-feet of flood control storage, reduces flooding from 3,018 square miles of drainage area upstream from the dam. Bear and Cherry Creek dams also reduce flood flows on the South Platte River. Bear Creek and Cherry Creek enter the South Platte River in the Denver County study reach.

Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$600,000	Total Estimated Preconstruction Engineering and Design Costs	$600,000
Initial Federal Share	450,000	Ultimate Federal Share	390,000
Initial Non-Federal Share	150,000	Ultimate Non-Federal Share	210,000

Fiscal Year 2002 funds are being utilized to initiate the PED phase. Fiscal Year 2003 funds will be used to continue the design work. The Preconstruction Engineering and Design is scheduled for completion in September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4.a Watershed/Ecosystem: (continued)					
WASHINGTON					
Duwamish & Green River Basin, Ecosystem Restoration Seattle District	2,250,000	100,000	236,000	265,000	1,649,000

The Duwamish River originates in the Cascade Mountains about 60 miles southeast of Seattle, Washington. The total drainage area is 438 square miles. The Green River flows through King County west and north to the historical mouth forming the Duwamish River at river mile and then empties into Elliott Bay in Puget Sound. Howard A. Hanson Dam, located at R.M. 64.5 on the Green River, provides flood control to the lower Green River Basin. There is a Federal Navigation channel and sediment catch basin in the lower Duwamish (R.M. 6.4). Historically a significant amount of wetlands and fish and wildlife habitat in the basin have been degraded or destroyed through a number of actions including fill from a Federally constructed and maintained navigation project. Over 98 percent of the original estuary wetlands have been lost. Critical areas of juvenile fish habitat are limited in this watershed. Low summer flows and high temperatures are also minimizing the effectiveness of what limited habitat remains. This degradation has caused a significant subsequent reduction in the number of fish and wildlife being produced or residing in the basin. What once was a natural fishery that supported millions of chum, Chinook, pink salmon and steelhead is in jeopardy. The degradation of this habitat along with other rivers in the area is partially responsible for a significant reduction in the anadromous fishery resources in the Puget Sound area. In March 1999 Puget Sound stocks of Chinook salmon were listed as a threatened species under the Endangered Species Act. A comprehensive plan for corrective measures is required to restore fish and wildlife habitat. The goal of the proposed project is to restore ecological functions and improve fish and wildlife resources. The Green/Duwamish Basin also lies on the North American Flyway and the restoration of migratory bird habitat in this basin has been identified under the Pacific Coast Joint Venture Strategic Plan.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

4.a Watershed/Ecosystem: (continued)

WASHINGTON (continued)

Duwamish & Green River Basin, (continued)

This study is strongly supported by multiple local, state, and Federal agencies. The Feasibility Cost Sharing Agreement (FCSA) was signed in September 1997 with King County. Feasibility report was completed in October 2000. The project was authorized by WRDA 2000. Fiscal Year 2003 funds will be used to continue the Preconstruction Engineering and Design phase. Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the Preconstruction Engineering and Design period at 25% non-Federal. Any adjustment that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	$3,000,000	Total Estimated Preconstruction Engineering and Design Cost	$3,000,000
Initial Federal share	2,250,000	Ultimate Federal share	1,950,000
Initial non-Federal share	750,000	Ultimate non-Federal share	1,050,000

The Preconstruction Engineering and Design phase is scheduled for completion in September 2008.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4a. Watershed/Ecosystem (continued)					
WASHINGTON (continued)					
Stillaguamish River Basin, Ecosystem Restoration Seattle District	1,000,000	8,000	31,000	100,000	861,000

The Stillaguamish River basin is located primarily in northwestern Snohomish County with a portion of the basin in southwestern Skagit County. The Stillaguamish River flows into Puget Sound about 20 miles northeast of Everett. Approximately one-third of the upper basin lies in Skagit County and the remainder in Snohomish County. The Stillaguamish basin has a drainage area of 685 square miles. Historically, a significant amount of wetlands and fish and wildlife habitat in the Stillaguamish River basin and estuary have been degraded or destroyed through a number of actions, including impacts from a Federally constructed revetment and river straightening project that is located in the lower part of the basin. These project eliminated habitats that are critical in providing for feeding and refuge areas for juvenile salmonids, as well as providing a needed water quality component for minimizing upstream impacts associated with forest practices. The loss of these habitats may be one of the primary causes of the significant reduction in the anadromous fishery resources in the Puget Sound area. This degradation has caused a significant reduction in the number of fish and wildlife being produced or residing in the basin. The current fish runs on the Stillaguamish River include several wild runs of coho, Chinook, and pink salmon and winter and summer runs of steelhead. Several of these species have been proposed as threatened under the Endangered Species Act. In March 1999 Puget Sound stocks of Chinook salmon were listed as a threatened species under the Endangered Species Act (ESA). Bull Trout are currently proposed as an threatened species in Puget Sound and coastal Washington. The summer and fall Chinook and the coho runs on the Stillaguamish are significantly depressed and fishing on these stocks has been eliminated because escapement goals have not been reached. The historic runs estimated to once number in the millions have now been closed to commercial fishing. The Stillaguamish River Estuary has been designated as a target area for the restoration of migratory bird habitat in this basin in the Strategic Plan of the Pacific Coast Venture, Washington Steering Committee of the North American Waterfowl Management Plan. Several parcels near the mouth of the river have been targeted for acquisition by the Pacific Coast Venture. Snohomish County is the sponsor of this study and signed the FCSA on 12 August 1998.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

4a. Watershed/Ecosystem (continued)

WASHINGTON (continued)

Stillaguamish River Basin, (continued)

Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the Preconstruction Engineering and Design period at 25% non-Federal. Any adjustment that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

The project was authorized by WRDA 2000.

Total Estimated Preconstruction Engineering and Design Costs	$1,333,000	Total Estimated Preconstruction Engineering and Design Costs	$1,333,000
Initial Federal share	1,000,000	Ultimate Federal share	866,000
Initial non-Federal share	333,000	Ultimate non-Federal share	467,000

The PED phase is scheduled for completion in September 2007.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4a. Watershed/Ecosystem (continued)					
WYOMING					
Jackson Hole Restoration Walla Walla District	400,000	145,000	110,000	108,000	37,000

The Upper Snake River drains through a series of steep river canyons into the Jackson Hole, Wyoming area, which is protected by a series of Federally constructed levees authorized in 1954. The Jackson Hole Federal flood protection system, completed in 1964, covers approximately 23 river miles and begins about 4 miles below the Snake River Bridge near Moose, and extends downstream to 4 miles below the Jackson-Wilson Bridge in Wyoming. Many non-Federal levees were also constructed in the Jackson Hole area in the 1960's as well. Since the 1960's several Corps of Engineer flood damage reduction studies have been conducted, but no additional Federal levee projects have been constructed for lack of economic justification. The Water Resources Development Act of 1986, Section 840, directed the Corps to assume responsibility for maintenance and operation of the levees in the Jackson Hole area, which was accomplished in 1990.

The Jackson Hole, Wyoming feasibility study responded to a June 1990 Congressional directive, which authorized the Corps to study fish and wildlife impacts resulting from the Jackson Hole project, as well as the need to complete earlier flood control investigations conducted under the Snake River in Wyoming Interim Study. In 1993, Teton County (local sponsor) and other local interests requested the Corps to combine all ongoing studies into a single, comprehensive study. This was accomplished and a reconnaissance report was completed in June 1993. Following subsequent extensive negotiations with the sponsor, a cost shared feasibility study was initiated in July 1996. The feasibility study was completed in October 2000. The feasibility study determined the extent of impacts to fish and wildlife resources resulting from the Federal levee project, identified opportunities for habitat restoration and recommended the Progressive Plan as the preferred alternative. The Progressive plan contains 12 contiguous sites over along a 22-mile river reach. Restoration features will include gravel removal to create additional pools and channels; eco fences to restore riparian habitat; anchored woody debris to create fish and riparian habitat and rock spur dikes to create in-stream fish habitat. Designs will provide significant restoration features while still providing for 100-year flood protection as identified by FEMA in 1973. The project was authorized by WRDA 2000. Preconstruction, Engineering and Design (PED) was initiated in FY 2001.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

4 a. Watershed/Ecosystem: (continued)

WYOMING (continued)

Jackson Hole Restoration (continued)

Fiscal Year 2002 funds will be used to complete the design at Site 9 and continue the PED effort, which would begin the design of Site 10. The total estimated cost of PED is $533,000 is to be initially cost shared 75% Federal and 25% non-Federal. PED will ultimately be cost shared at the rate for project construction, which is 35% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering, and Design Costs	$533,000	Total Estimated Preconstruction, Engineering, and Design Costs	$533,000
Initial Federal Share	400,000	Ultimate Federal Share	346,450
Initial Non-Federal Share	133,000	Ultimate Non-Federal Share	186,550

The PED phase completion date is scheduled for September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

4b. Navigation: None.

4c. Flood Control: The amount of $ 1,116,000 is requested to continue PED on five projects.

KANSAS

Turkey Creek Basin, Kansas and Missouri Kansas City District	2,025,000	1,191,000	400,000	250,000	184,000

The Turkey Creek basin is a 23-square-mile area within Kansas City, Kansas and suburbs in Johnson and Wyandotte Counties. The basin is nearly 100 percent urbanized, and a significant amount of development exists in the flood plain. A dual flood threat exists in the study area which consists of Turkey Creek overbank flows and localized hillside runoff. Either flood source can cause considerable damage. Six damaging floods have occurred since 1977. The flood of record occurred in July 1993 causing one fatality and damages estimated at $20 million.

The recommended project is estimated to cost $42.9 million, with an estimated Federal cost of $25.6 million and an estimated non-Federal cost of $17.3 million, including construction of channel modification and tributary floodwater diversion. The average annual benefits amount to $5.5 million, all for flood control. The benefit-cost ratio is 1.5 to 1 based upon the latest economic analysis completed in 1998. The cities of Kansas City, Missouri, and Kansas City, Kansas, are joint sponsors. Latest evidence of sponsor support for design and construction is letters of support dated November 1998 from Kansas City, Missouri, and Kansas City, Kansas. The feasibility study was completed with publishing of the Division Engineer's Notice in December 1998. Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed but will be financed through the Preconstruction Engineering and Design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$2,700,000	Total Estimated Preconstruction Engineering and Design Costs	$2,700,000
Initial Federal Share	2,025,000	Ultimate Federal Share	1,755,000
Initial Non-Federal Share	675,000	Ultimate Non-Federal Share	945,000

The cost sharing for the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996.

Fiscal Year 2002 funds are being utilized to continue work on the Design Document Report and for preparation of a post authorization change report. The funds being requested for Fiscal Year 2003 funds will be used to continue Preconstruction Engineering and Design.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4c. Flood Control (continued)					
MISSOURI					
Swope Park Industrial Area, Kansas City Kansas City District	750,000	10,000	40,000	100,000	600,000

The Blue River drains a 272 square-mile area, much of which is a highly urbanized part of the Kansas City Metropolitan Region. About 56 percent of the basin lies in Johnson County, Kansas, and the remainder is in Cass and Jackson Counties, Missouri. Flooding has been a major problem in the basin for many years. Several additional Corps of Engineers flood damage reduction projects are either constructed, under construction, or authorized for construction in the vicinity of the Swope Park Industrial Area. These include the Federal Complex floodwall/levee at Bannister Road (constructed) two miles upstream, the Dodson levee project (authorized) 1 mile upstream, and the channel modification on the lower 12-mile reach of the Blue River approaching the Missouri River (under construction).

The recommended project is estimated to cost $12.5 million, with an estimated Federal cost of $8.1 million and an estimated non-Federal cost of $4.4 million. The average annual benefits amount to $1.3 million, all for flood control. The benefit-cost ratio is 1.51 based upon the latest economic analysis dated April 2001. The city of Kansas City, Missouri, will be the sponsor for the project. Latest evidence of sponsor support is the execution of the Feasibility Cost Sharing Agreement which was signed in August 1997.

Preconstruction Engineering and Design will be executed in June 2002 that will ultimately be cost shared at the rate for the project to be constructed but will be financed through the Preconstruction Engineering and Design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. The cost sharing for the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1996. The funds requested for FY 2003 will be used to continue Preconstruction Engineering and Design.

Total Estimated Preconstruction Engineering and Design Costs	$1,000,000	Total Estimated Preconstruction Engineering and Design Costs	$1,000,000
Initial Federal Share	750,000	Ultimate Federal Share	650,000
Initial Non-Federal Share	250,000	Ultimate Non-Federal Share	350,000

The Preconstruction Engineering and Design phase completion date is May 2006.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4c. Flood Control (continued)					
NEBRASKA					
Sand Creek Watershed, Wahoo, Omaha District	1,125,000	207,000	413,000	130,000	375,000

The Sand Creek Watershed project area is located in southeastern Nebraska in Saunders County and has a drainage area of approximately 87 square miles at the proposed location of the Highway 77 bypass north of Wahoo. This location is on Wahoo Creek, downstream of the confluence of Sand Creek and Duck Creek. The integrated Feasibility Study/Environmental Impact Study assessed the environmental benefits of Lake Wanahoo with the proposed Highway 77 bypass as the embankment for Lake Wanahoo. The interim feasibility study also addressed several other possible measures and/or structures to provide watershed restoration in the form of sediment control and wetland development. The project was conditionally authorized for construction in the Water Resources Development Act of 2000. The project will substitute a highway bridge structure with a reservoir embankment with highway constructed on top. The Lower Platte North Natural Resources District is the cost sharing partner for the PED effort.

PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. Fiscal Year 2003 funds will be used to continue the PED phase.

Total Estimated Preconstruction Engineering and Design Costs	$1,500,000
Initial Federal Share	1,125,000
Initial Non-Federal Share	375,000

Total Estimated Preconstruction Engineering and Design Costs	$1,500,000
Ultimate Federal Share	975,000
Ultimate Non-Federal Share	525,000

The PED is scheduled for completion in September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4c. Flood Control (continued)					
NEBRASKA (continued)					
Western Sarpy and Clear Creek, Omaha District	1,161,000	320,000	372,000	180,000	289,000

The Western Sarpy/Clear Creek project area is located along and on opposite banks of the Lower Platte River and a portion of the Elkhorn River in eastern Nebraska. The area has a significant, long-term flooding problem. The interim feasibility study identified several variations of alternative levee alignments and components, as well as a non-structural plan. Environmental restoration was also considered. The project was conditionally authorized for construction in the Water Resources Development Act of 2000. The project will consist of a 50-year levee system that incorporates conservation measures for endangered species.

PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. Fiscal Year 2003 funds will be used to continue PED.

Total Estimated Preconstruction Engineering and Design Costs	$1,548,000
Initial Federal Share	1,161,000
Initial Non-Federal Share	387,000

Total Estimated Preconstruction Engineering and Design Costs	$1,548,000
Ultimate Federal Share	1,006,000
Ultimate Non-Federal Share	542,000

The PED is scheduled for completion in September 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $
4c. Flood Control (continued)					
WASHINGTON					
Centralia, Flood Damage Reduction Seattle District	11,000,000	5,420,000	1,150,000	500,000	3,930,000

The Chehalis River basin drains a total area of 2,114 square miles in southwest Washington state and empties into Grays Harbor on the Pacific Coast. The Centralia-Chehalis urban area of Lewis County forms the major flood damage center in the upper Chehalis River basin, where the Skookumchuck and Newaukum Rivers join with the Chehalis River (828 sq.mi. drainage area). During major flood events, about 9,200 acres are flooded with about a quarter of those supporting urban development. The maximum Chehalis River flood of record that occurred in February 1996 carried about 57,200 cubic feet per second flow at Centralia and is now considered to be a 100-year event. Total flood damages resulting from flooding since 1990 are estimated by Lewis County officials to exceed $60 million, even neglecting impacts (estimated at more than $30 million/day) caused by the closures lasting almost a week in both 1990 and 1996 of Interstate Highway 5, the main north-south railroads in Washington, and numerous county roads and city streets, blocking north-south travel in western Washington.

The project's Feasibility Report was completed in FY 1983 and the project authorized by WRDA 1986 to modify an existing private dam on the Skookumchuck River to provide a maximum of 28,500 acre-feet of flood storage, reducing flood damages in the Skookumchuck valley, the town of Bucoda, and the city of Centralia. The recommended project, estimated to cost $20.5 million (1986 price level), with the estimated Federal cost being $15.4 million and the non-Federal cost $5.1 million, would have reduced the Skookumchuck River then 200-year flood flow from 13,300 cfs. to 6,700 cfs. (a reduction in depth of 2-5 feet in Centralia). Average annual benefits were estimated at $2.9 million and the project had a benefit-to-cost ratio of 1.4 to 1.0. Preconstruction Engineering and Design (PED) was started in FY 1988 with the city of Centralia as local sponsor. PED was stopped at the end of FY 1990 because studies indicated that the recommended plan probably lacked economic justification.

Following the disastrous 1990 and 1996 flood events, Lewis County, using local and state funding, conducted review studies that identified modifications to the authorized project that could result in a potentially economically justified project. In May 1998, Lewis County completed a "Pre-Feasibility Analysis of Alternatives" report (similar in scope to a reconnaissance study) that identified a plan that appeared to be economically justified and warranted further consideration. On 7 July 1998, Lewis County requested that the Corps resume PED work with a view to combining additional measures with the authorized dam modification element to form a complete flood damage reduction plan for the

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2002 $	Allocation FY 2002 $	Tentative Allocation FY 2003 $	Additional to Complete After FY 2003 $

4c. Flood Control (continued)

WASHINGTON (continued)

Centralia, (continued)

Centralia-Chehalis urban area. They agreed to serve as local sponsor and provide the appropriate cost sharing. Lewis County's current plan combines the authorized dam modification with overbank excavation and a flood bypass in a $66 million (1998 price level) project that appears to have a benefit-to-cost ratio of 1.3 to 1.0. Using available funds, PED work was resumed in July 1998. Since PED originally had been initiated prior to the policy change requiring cost sharing of PED, this project is considered "grandfathered" and the Corps has the responsibility to perform all PED work at Federal expense. PED will ultimately be cost shared at the rate for the project to be constructed, with any adjustments necessary to bring the non-Federal contribution in line with the proper project cost sharing to be accomplished in the first year of construction. A Project Study Plan was completed in November 1999 that identified items required for a GRR/EIS that would assess the authorized project, the Lewis County plan, and other appropriate flood damage reduction alternatives, and make recommendations regarding modifications of the projects construction authority.

The project is authorized for construction by Section 401 of WRDA 1986 with the following cost sharing requirements: local interests are required to provide lands, easements, rights-of-way, modify or relocate buildings, utilities, roads, and other facilities, except railroad bridges, where necessary in the construction of the project, and pay costs allocated to flood control, so that the total contribution of the local interests is equal to 25% of the cost allocated to flood control, and bear all costs of operation, maintenance, and replacement of flood control facilities. The enlarged project will exceed the Corps' authority for post authorization changes and would require additional Congressional action prior to construction.

Fiscal Year 2002 funds are being used to continue the General Reevaluation Report , including Environmental Impact Statement. Fiscal Year 2003 funds would be used to continue the Preconstruction Engineering and Design phase.

PED is scheduled for completion in September 2012.

Total Estimated Preconstruction Engineering and Design Costs	$16,000,000
Initial Federal share	11,000,000
Initial non-Federal share	5,000,000

Total Estimated Preconstruction Engineering and Design Costs	$16,000,000
Ultimate Federal share (65%)	10,400,000
Ultimate non-Federal share (35%)	5,600,000

APPROPRIATION TITLE: Construction, General – Section 536 (Ecosystem Restoration)

PROJECT: Lower Columbia River Ecosystem Restoration, Oregon and Washington - New

LOCATION: The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam. The river divides the states of Oregon and Washington throughout this area.

DESCRIPTION: The project area includes the estuaries and all tributaries that are tidally influenced,[should this be included? which includes the Willamette River up to Willamette Falls.] Justification for the project is based on non-monetary fishery and other biological benefits. Since benefits are non-monetary, a benefit-to-cost ratio has not been prepared. A comprehensive conservation and management plan for the Lower Columbia River was developed under Section 320 of the Federal Water Pollution Control Act (33 U.S.C. 1330).

AUTHORIZATION: Section 536 of Water Resources Development Act of 2000 (P. L. 106-541, dtd. 11 Dec 2000)

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Environmental restoration project costs are not subject to formal benefit calculations.)

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:		ACCUM PCT OF EST FED COST	STATUS (1 JAN 2002)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$20,000,000				
Estimated Non-Federal Cost	10,000,000				
Cash Contribution	TBD		Entire Project	0%	Sep 2009
Other Costs	TBD				
Total Estimated Project Cost	$ 30,000,000				
Allocations to 30 September 2001	$ 0				
Conference Allowance for FY 2002	0				
Allocation for FY 2002	0				
Allocations through FY 2002	0				
Allocation Requested for FY 2003	2,000,000			7%	
Programmed Balance to Complete	18,000,000				
Unprogrammed Balance to Complete after FY 2003	0				

Division: Northwestern

District: Portland

Lower Columbia River Ecosystem Restoration, OR & WA

JUSTIFICATION: The National Marine Fisheries Service (NMFS) has identified the Columbia River Estuary as playing a vital role in rebuilding the productivity of Columbia River Basin salmon and steelhead listed under the Endangered Species Act. The NMFS December 2000 Biological Opinion for the Federal Columbia River Power System (FCRPS) calls for the Corps and other Federal "action agencies" to implement actions to avoid jeopardy for these listed species. Actions include protection and enhancement of 10,000 acres of tidal wetlands and other key habitats in the Columbia River estuary over ten years, beginning in 2001, to rebuild productivity for listed salmon and steelhead populations. The implementation of Lower Columbia River estuary actions now is critical to meeting performance requirements at the 3, 5, and 8-year checkpoints for Biological Opinion implementation. The implementation of the Lower Columbia River element of this Section 536 legislation will serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the National Estuary Program, six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens to identify and cost share restoration projects. The FY 2003 budget request is to initiate the Columbia River estuary portion, only.

NON-FEDERAL COSTS: The authorization provides that studies shall be subject to cost sharing in accordance with section 105 of WRDA 1986 and that restoration projects shall be cost shared at 35% by non-Federal interests, that nonfederal interests shall provide all lands, easements, rights-of-way, dredged material disposal areas, and relocations necessary for the projects to be carried out and that in-kind contributions can not exceed 50% of the non-Federal share. However, the Federal share of projects carried out on Federal lands shall be 100%.

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement for the Lower Columbia River estuary project has not been prepared. Implementation Guidance has been drafted and is under review at Headquarters level. Current plans to implement this section include preparing PCAs for individual restoration sites as they are identified.

FISCAL YEAR 2003: The requested amount of $2,000,000 will be applied in the Lower Columbia River estuary as follows:

Study (Identify Sites and Priorities)	$ 600,000
Engineering and Design	400,000
Initiate Construction	900,000
Construction Management	100,000
Total	$ 2,000,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $20,000,000 is the initial cost estimate.

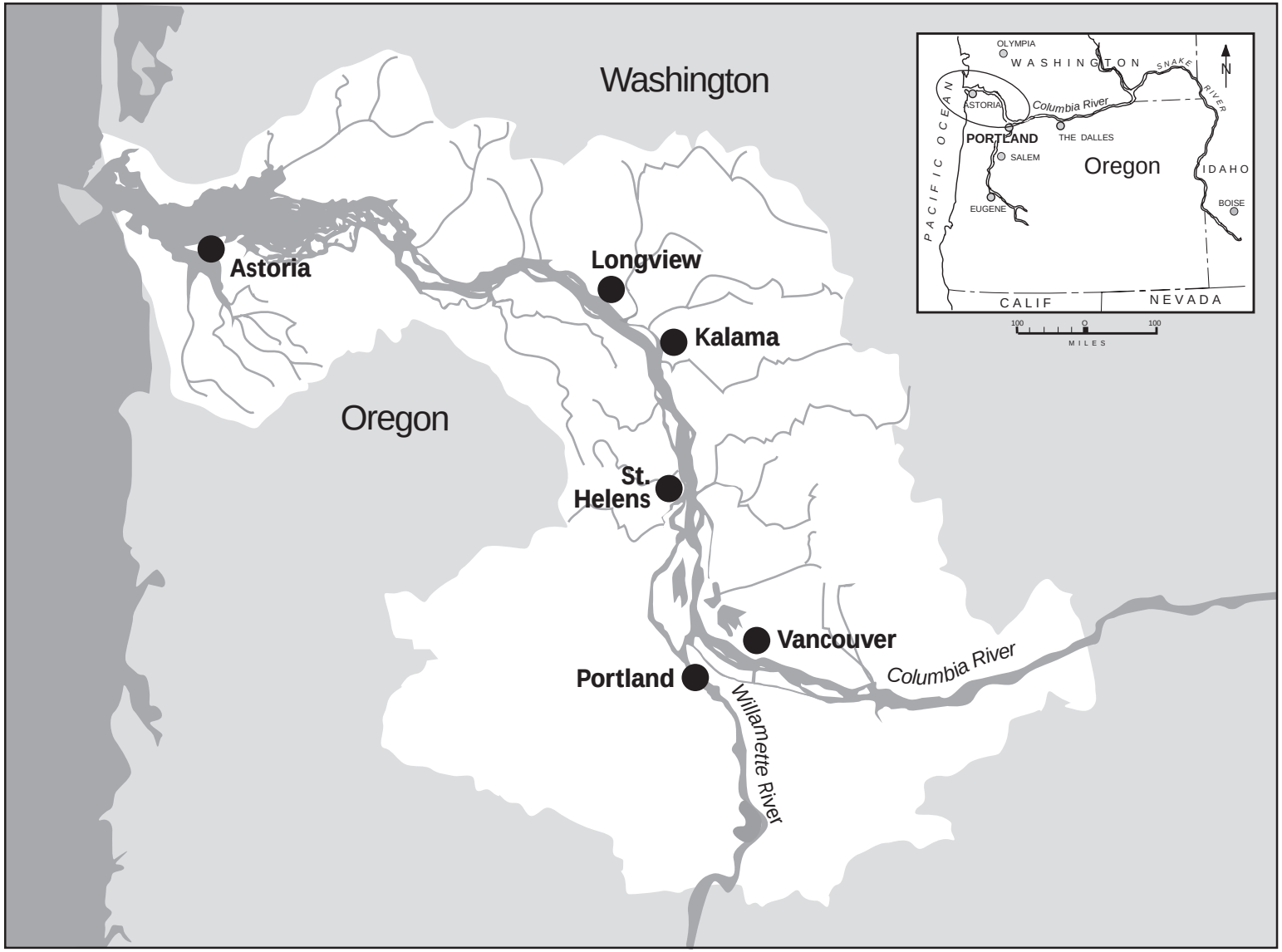
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement has not been prepared. Implementation Guidance has been drafted and is under review at Headquarters level. Current plans to implement this section include preparing NEPA documentation on individual restoration sites as they are identified.

OTHER INFORMATION: Types of projects will include, but not be limited to: a) creation and restoration of shallow water habitat; b) restoration of wetlands; c) improvements to fish passage; and d) restoration of floodplain functions and other actions to restore the Lower Columbia estuary ecosystem Also, the Corps is undertaking a feasibility study, Lower Columbia River Ecosystem Restoration, WA & OR, with a broader geographical scope than this project, and addressing ecosystem issues in addition to salmon recovery. Tillamook Bay work is also authorized by Section 536, but those efforts will be the subject of a future budget decision.

Division: Northwestern

District: Portland

Lower Columbia River Ecosystem Restoration, OR & WA



Status of Work

Specific site identification is in process

Lower Columbia
Ecosystem Restoration
Oregon and Washington

Scale as Shown
US Army Engineer District, Portland
Northwestern Division

Prepared 4 February 2002

APPROPRIATION TITLE: Construction, General - Navigation - Channels and Harbors

PROJECT: Grays Harbor, Washington - (Continuing)

LOCATION: Grays Harbor is a large tidal estuary in southwestern Washington. The entrance is 45 miles north of the mouth of the Columbia River and 110 miles south of the Strait of Juan de Fuca. The estuary lies entirely within Grays Harbor County, Washington.

DESCRIPTION: The improvement consists of modifying 24 miles of the existing Federal navigation project for Grays Harbor by widening and deepening the channel, with one turning basin being enlarged and terminal berths deepened. Phase 1 deepened the 20-mile downstream channel to 36 feet and the 4-mile upstream channel to 32 feet, and was completed in 2000. Phase 2 will deepen the downstream channel to the full authorized depth of 38 feet. The project also includes significant crab and fish mitigation. (Modification of a railroad bridge, removal of two old highway bridge piers, utility relocations, navigation aids, upstream widening, and one turning basin widening were deleted from the project scope during Phase 1.)

AUTHORIZATION: Water Resources Development Act of 1986 authorized channel deepening to 38 feet.

REMAINING BENEFIT - REMAINING COST RATIO: TBD

TOTAL BENEFIT - COST RATIO: 2.1 to 1 at 7-1/8%. (FY 1998)

INITIAL BENEFIT - COST RATIO: 1.8 to 1 at 8-5/8%. (FY 1990)

BASIS OF BENEFIT-COST RATIO: Initial project benefits and costs are from an evaluation approved in February 1989 at October 1988 price levels. Total project benefits and costs are for the completed portion of the project, including benefits and costs for the upstream portion of the project updated to reflect the final upstream scope, and were reported in a Limited Reevaluation Report (LRR) dated March 1998 at 1998 price levels (7-1/8%). The remaining benefits and costs for Phase 2 deepening of the downstream channel to 38 feet will be determined in a General Reevaluation Report (GRR) to be prepared in FY 2004-2005.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2002)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)		$28,170,000	Entire Cost	64	30 Sep 2007
Estimated Non-Federal Cost		13,223,000			
Cash Contributions	$9,754,000				
Other Costs	3,469,000				
Total Estimated Project Cost		$41,393,000			

Division: Northwestern District: Seattle Grays Harbor, Washington

SUMMARIZED FINANCIAL DATA (Contd.)

		Accum Pct. of Est. Fed Cost.
Allocations to 30 September 2001	$18,135,000	
Conference Allowance for FY 2002	325,000	
Allocation for FY 2002 (Est)	-27,000	
Allocations thru FY 2002 (Est)	18,108,000	64
Amount Requested for FY 2003	50,000	65
Programmed Balance to Complete after FY 2003	10,012,000	
Unprogrammed Balance to Complete after FY 2003	0	

PHYSICAL DATA

CHANNEL REACH TITLE	Proposed Phase 2 Improvement	Completed Phase 1 Improvement	Pre-Improvement
Outer Bar		1000' Wide x 46' Deep	600' Wide x 30' Deep
Entrance		1000'-600' Wide x 46'-38' Deep	350' Wide x 30' Deep
Outer Harbor	350' Wide x 38' Deep	350' Wide x 36' Deep	350' Wide x 30' Deep
Inner Harbor	350' Wide x 38' Deep	350' Wide x 36' Deep	350' Wide x 30' Deep
River		200' Wide x 32' Deep	200' Wide x 30' Deep
TURNING BASIN			
Cow Point	950' Wide x 1,000' Long x 38' Deep	950' Wide x 1,000' Long x 36' Deep	800' Wide x 800' Long x 30' Deep

JUSTIFICATION: The downstream 20 miles of the navigation channel were deepened and widened in 1990-91 to accommodate larger vessels in existing and future vessel fleets. Since completion of the downstream portion of the channel, larger vessels have been regularly calling at the Port of Grays Harbor terminals and the Port has been able to diversify its cargoes in a changing market. The Port exports logs, lumber, aluminum, and other bulk cargoes; imports some materials; and large cruise ships are now periodically stopping at the Port.

Subsequent to completion of Phase 1 (see OTHER INFORMATION), the Port of Grays Harbor (local sponsor) has requested further channel improvements; deepening the downstream channel to the full authorized depth of 38 feet. The Port has a new client to initially use the existing 36 foot channel depth, and proposes to use larger vessels in a deeper channel if additional construction is economically feasible and environmentally acceptable. The General Reevaluation Report design effort on further deepening and its costs and impacts is now scheduled for FY 2004 and 2005 following completion of the client's new facility in 2002 or 2003. Major construction would begin in FY 2006. FY 2002 will complete Phase 1 closeout effort and coordinate with the local sponsor on Phase 2. FY 2003 funds will be used to continue coordination with the local sponsor on Phase 2.

FISCAL YEAR 2003: The requested amount will be applied as follows:

Coordination	$ 50,000
Total	$ 50,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation:	Payments During Construction Costs	Annual Operation, Maintenance and Replacement
Provide lands, easements, rights of way, relocations, and dredged material disposal areas.	$ 3,469,000	
Pay 25 percent of the costs allocated to General Navigation during construction.	9,399,000	
Special land creation cost sharing for filling Slip Number One.	22,000	
Extra ocean disposal cost to meet state disposal requirement.	62,000	
Dredge berth areas, 100% cost sharing cash.	271,000	
TOTAL NON-FEDERAL COSTS	$13,223,000	None

STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Grays Harbor, signed a Local Cooperation Agreement (LCA) on 16 February 1990. Local sponsor continues to contribute non-Federal funds per the LCA, and all cost sharing contributions have been made on time. The Port continues to have more than sufficient financial resources to fund their share of the entire project, including Phase 2. The Port will cost share all GRR costs. A revised LCA/PCA will be executed following approval of the GRR on Phase 2.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $28,170,000 is unchanged from the latest estimate submitted to the Congress (FY 2002).

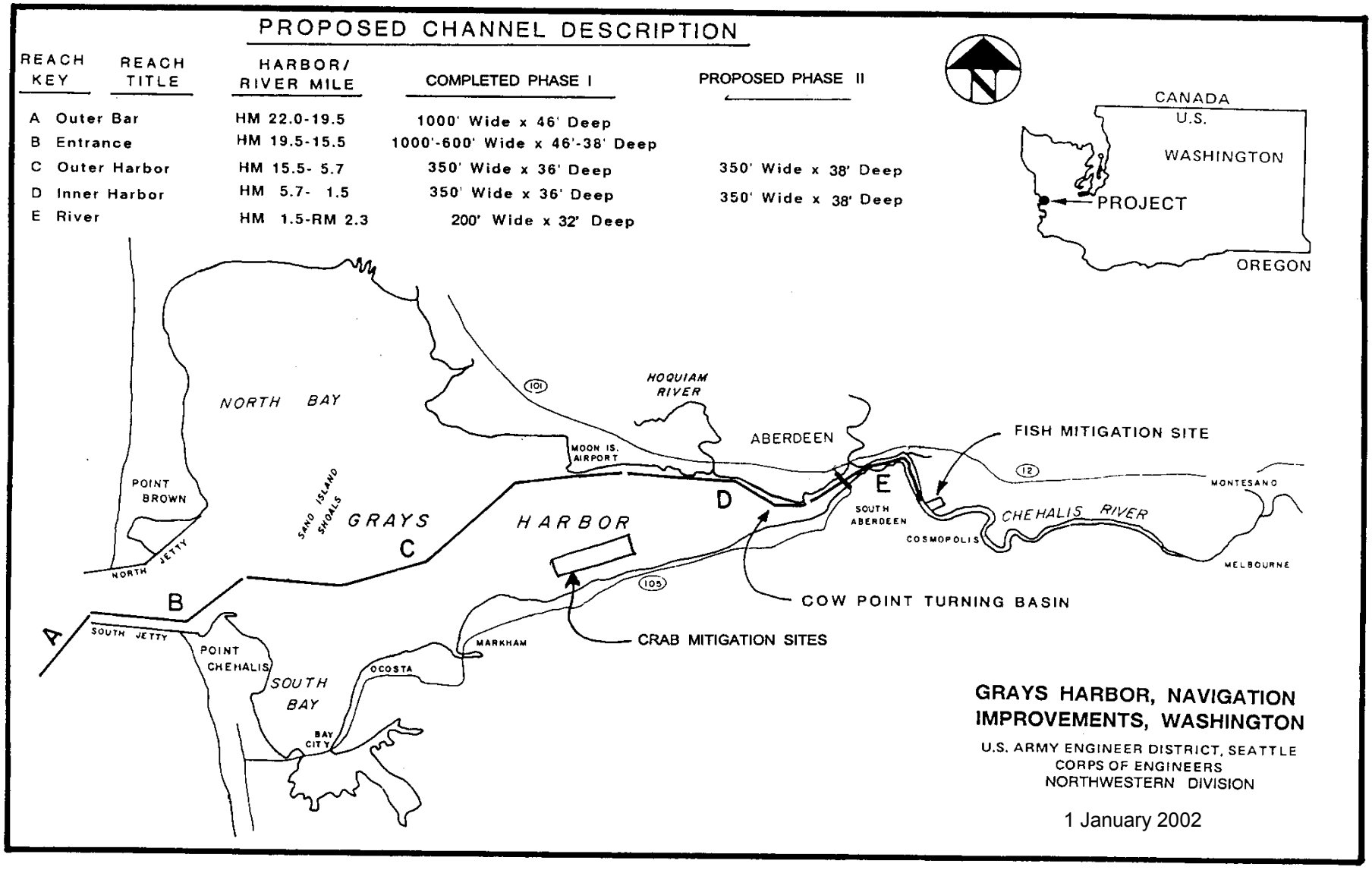
STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

Phase 1: The final EIS Supplement for the proposed improvements was filed with EPA on 12 May 1989. An Environmental Assessment (EA) and Finding of No Significant Impact was completed on 15 February 1990 for potential contaminated sediments not addressed in the EIS Supplement. The project Record of Decision was signed by the Division Engineer on 15 February 1990. An EA was completed in September 1998 on the last portion of the project (Phase 1) to document the last changes to the project scope. These changes were discussed with the resource agencies and were presented in the approved Limited Reevaluation Report.

Phase 2: An EIS Supplement on additional dredging and mitigation will be prepared and filed with EPA.

OTHER INFORMATION:

Completed Project Features: Funds to initiate preconstruction engineering and design were appropriated in FY 1984. Funds to initiate construction were appropriated in FY 1990. Construction of fish mitigation was completed in September 1990. The 20-mile downstream channel dredging was completed in January 1991. Initial crab mitigation was completed in May 1993. The 4-mile upstream channel dredging was completed in June 1999. Final crab mitigation was completed in April 2000. All these features comprise Phase 1. Fish and Wildlife mitigation costs for Phase 1 totaled $3,250,000



Division: Northwestern District: Seattle Grays Harbor, Washington

4 February 2002

APPROPRIATION TITLE: Construction, General - Flood Control, Local Protection

PROJECT: Big Sioux River and Skunk Creek, Sioux Falls, South Dakota (Continuing)

LOCATION: Sioux Falls is located on a large bend of the Big Sioux River and at the confluence with Skunk Creek in the south half of Minnehaha County in southeastern South Dakota.

DESCRIPTION: The project builds upon an existing project. It consists of raising an existing levee from the diversion dam to the upstream tie-off, raising the diversion channel levee, modifying the chute and stilling basin, raising the diversion dam, raising the levees on Skunk Creek, raising Big Sioux levees downstream of Skunk Creek, and providing for bridge improvements.

AUTHORIZATION: Section 101 of the Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 1.12 to 1 at 7.375 percent

TOTAL BENEFIT-COST RATIO: 1.12 to 1 at 7.375 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in August 1997 at 1998 price levels.

SUMMARIZED FINANCIAL DATA:

			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2002)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 31,206,000				
Estimated Non-Federal Cost		10,402,000				
Cash Contribution	$ 2,396,000			Entire Project	21	Sep 2006
Other Costs	$ 8,006,000					
Total Estimated Project Cost		$ 41,608,000				
Allocations to 30 September 2001		$ 6,034,000				
Conference Allowance for FY 2002		6,000,000				
Allocation for FY 2002		3,046,000	1/			
Allocations through FY 2002		9,080,000	29			
Allocation Requested for FY 2003		3,964,000	42			
Programmed Balance to Complete		18,162,000				
Unprogrammed Balance to Complete after FY 2003		0				

1/ Reflects $959,000 reduction assigned as savings and slippage and $1,995,000 reprogrammed from the project.

Division: Northwestern

District: Omaha

Big Sioux River and Skunk Creek, Sioux Falls, South Dakota

PHYSICAL DATA

Relocations:
2 Utilities, 3 Bridges, and
4 Structures

Levee:
Length: 11.5 miles
Level of Protection: 100-year flood

Bridges:
Raise: 3 roadway and 1 railroad

Spillway/Stilling Basin:
Spillway: Raise Walls
Stilling Basin: Raise Walls

JUSTIFICATION: The project will provide urgently needed flood protection to the metropolitan areas of Sioux Falls, South Dakota. The flood problem is severe under the present stage of urban development. There have been eight floods in the city in the past forty-five years with the largest in 1969, a 100-year event. This 100-year flood today would cause $111 million in damage based on current economic analysis. This project would provide protection from a 100-year event. The average annual damages to the 2,707 structures in the 100-year flood plain is $2.7 million. The average annual damages without the project are $5.7 million. The average annual damages with the project are $2.3 million. With this project in place the annual benefits derived will be $3.8 million, all from flood damage protection.

Annual Benefits	Amount
Flood Damage Prevention (Urban):	
Structure and Contents	$ 2,628,800
External Damages	289,100
Emergency Costs	203,900
Flood Insurance Costs	185,200
Flood Plain Fill Costs	514,800
Total Benefits	$ 3,821,800

FISCAL YEAR 2003: The requested amount of $3,964,000 will be applied as follows:

Item	Amount
Continue Land Acquisition Activity	$ 33,000
Continue Levee Construction	3,515,000
Construction Management	416,000
Total	$ 3,964,000

Division: Northwestern

District: Omaha

Big Sioux River and Skunk Creek,
Sioux Falls, South Dakota

NON-FEDERAL TOTAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments during Construction	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	$ 3,395,000	
Relocate utilities, buildings, roads, bridges (except railroad bridges), and other facilities required for construction of the project.	$ 4,611,000	
Pay 5 percent of the cost allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$ 2,080,000	$ 32,450
Pay 1 percent of the costs allocated to flood control to bring the total non-Federal share of flood control to 25 percent.	$ 316,000	
Total Non-Federal Costs	$10,402,000	$ 32,450

The non-Federal sponsor will make required cash contribution payments concurrently with project construction.

Communities must agree to adopt additional flood plain management activities, beyond the requirement to participate in the National Flood Insurance Program, to qualify for Federal participation in a structural flood damage reduction project. These activities, which are being discussed between the Administration and Congress, may include public information and education on flood hazards within the community, flood plain regulation to promote sound use and reduce future flood damages, control of storm water runoff, and preservation of open space.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the city of Sioux Falls to sponsor the Big Sioux River project was executed on 14 August 2000. The current non-Federal cost estimate of $10,402,000, which includes a cash contribution of $2,396,000, is an increase from the non-Federal cost estimate of $10,150,000 noted in the PCA, which included a cash contribution of $2,402,000.

Division: Northwestern

District: Omaha

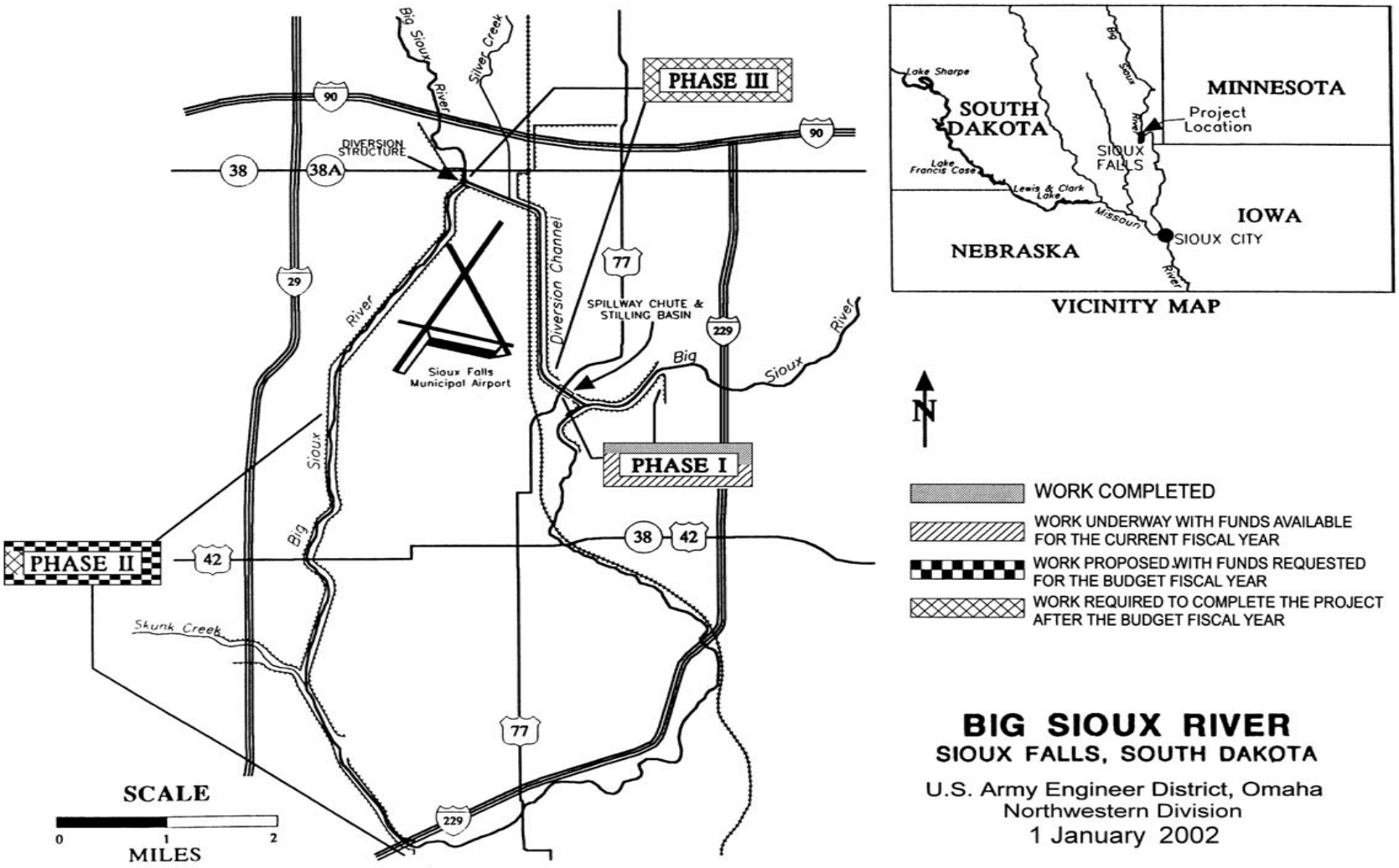
Big Sioux River and Skunk Creek,
Sioux Falls, South Dakota

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $31,206,000 is an increase of $756,000 from the latest estimate ($30,450,000) presented to Congress (FY 2002). This change includes the following items:

Item	Amount
Price Escalation on Construction Features and Changes in Project Inflation Rates	$ -822,000
Other Estimating Adjustments	+1,578,000
Total	$ +756,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental impact statement was not required for this project. An Environmental Assessment and a Finding Of No Significant Impact were completed with the feasibility report.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 94. The mitigation portion of this project will consist of creating 0.8 acres of wetlands to replace the wetlands lost by raising of existing levees. Funds to initiate construction were approved in Fiscal Year 2000.



Division: Northwestern

District: Omaha

Big Sioux River and Skunk Creek, Sioux Falls, South Dakota

4 February 2002

APPROPRIATION TITLE: Construction, General – Local Protection Projects (Flood Control)

PROJECT: Blue River Basin, Kansas City, Missouri - Continuing

LOCATION: Located along the left bank of the Blue River from U.S. 71 Highway upstream for a distance of about 1-¼ miles in Jackson County Missouri to the Bannister Federal Complex levee.

DESCRIPTION: The project plan consists of a levee and gate system 5,600 feet long connecting the Bannister Road Federal Complex levee at the upstream end to the embankment of Bruce R. Watkins Drive on the downstream end.

AUTHORIZATION: Water Resources Development Act of 1996 (PL 104-303).

REMAINING BENEFIT – REMAINING COST RATIO: 1.5 to 1 at 6 7/8 percent

TOTAL BENEFIT-COST RATIO – 1.5 to 1

BASIS OF BENEFIT-COST RATIO: Feasibility Report dated February 1996

SUMMARIZED FINANCIAL DATA:

				STATUS (1 Jan 02)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$12,332,000				
Estimated Non-Federal Cost		6,786,000				
Cash Contribution	1,000,000			Entire Project	10	Sep 2010
Other Costs	5,786,000					
Total Estimated Project Cost		19,118,000				

			ACCUM PCT. OF EST. FED COST	
Allocations to 30 September 2001		1,737,000		
Conference Allowance for FY 2002		675,000		PHYSICAL DATA
Allocation for FY 2002		567,000	1/	Levee and floodwall 5600 feet long
Allocations through FY 2002		2,304,000	12%	
Allocation Requested for FY 2003		200,000	17%	
Programmed Balance to Complete after FY 2003		9,828,000		

1/ Reflects reduction of $108,000 assigned as savings and slippage.

JUSTIFICATION: The Blue River drains a 272 square-mile area, much of which is a highly urbanized part of the Kansas City Metropolitan Region. About 56 percent of the basin lies in Johnson County, Kansas, and the remainder is in Cass and Jackson Counties, Missouri. Flooding has been a major problem in the basin for many years. Five serious floods and three less severe floods have occurred in the Dodson Industrial Area since 1928. The flood of record was in 1961 with a peak discharge of 41,000 cubic feet per second. A channel modification project is currently under construction on the downstream 12-mile reach near the Missouri River. However, a serious flood problem remains, particularly along the left bank of the Blue River from U.S. Highway 71 upstream for a distance of about 1-1/4 miles in Jackson County, Missouri, to the Bannister Federal Complex levee. The May 1990 flood caused approximately $1.6 million in damages to the 1-1/4 mile reach of this project area which is comprised of commercial properties and public structures valued at around $219 million. Estimated annual average benefits, all flood control, based on 1 October 1995 prices, are $1,923,000. Without flood protection, the Dodson Industrial Area will continue to be damaged by periodic flooding, and will be faced with economic decline. The problem will worsen with time if no corrective action is taken because frequently flooded buildings deteriorate and have shortened economic lives.

NON-FEDERAL COSTS: Local interests are required to provide a cash contribution equal to 5 percent of total project costs assigned to flood control; furnish without cost to the United States all lands, easements, relocations, and rights-of-way required for construction and subsequent maintenance of the project; maintain and operate the project after completion, at no cost to the United States, in accordance with applicable Federal and State laws and regulations; keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project; participate in and comply with applicable Federal flood plain management and flood insurance programs; and adequately inform all affected interests, at least annually, of the extent of protection provided by the project. The investment is broken down as follows:

Lands and Damages	$4,150,000
Relocations	860,000
Contingencies	490,000
Cash	1,000,000
	6,500,000

It is estimated that the average annual expenditure for operation, maintenance and replacements will total $20,000 (1 October 1999).

STATUS OF LOCAL COOPERATION: The City of Kansas City, Missouri expressed its intent to sponsor the project and a statement of financial capabilities in a letter dated 20 February 1996. The Project Cooperation Agreement (PCA) was signed in September 2001.

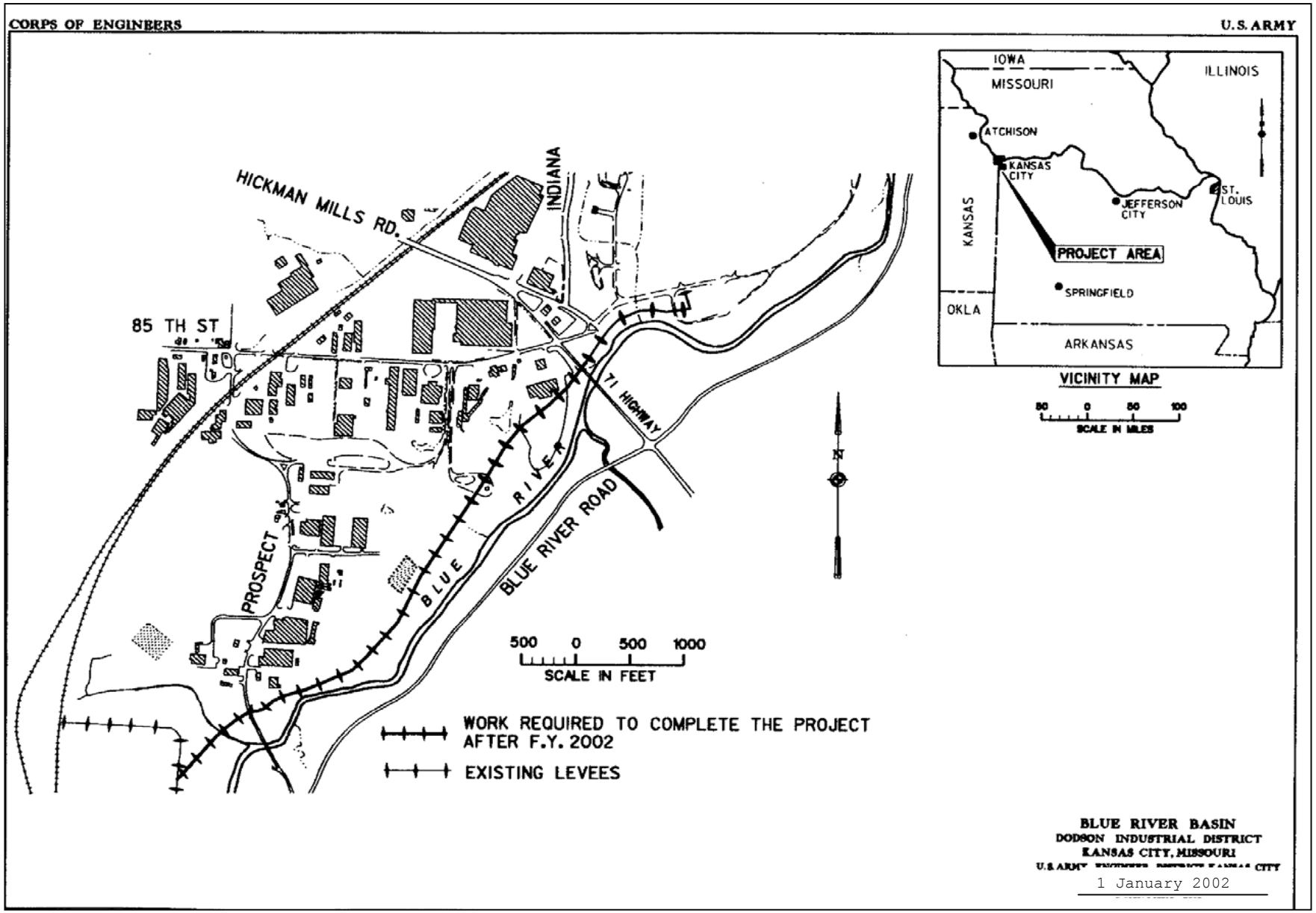
FISCAL YEAR 2003: The requested amount of $200,000 will be applied as follows:

Item	Amount
Continue project coordination, and plans specifications	$200,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $12,332,000 is the initial estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment, dated February 1996, concluded that no significant impacts which would adversely affect the quality of the environment were identified for the plan for flood protection measures for the Dodson Industrial Area. The District Commander signed a Finding of No Significant Impact 15 March 1996.

OTHER INFORMATION: Preconstruction Engineering and Design (PED) was completed in September 2000. Funds to initiate construction were appropriated in FY 2001.


CORPS OF ENGINEERS
U.S. ARMY
HICKMAN MILLS RD.
INDIANA
85 TH ST
71 HIGHWAY
PROSPECT
BLUE
RIVER
BLUE RIVER ROAD
N
500 0 500 1000
SCALE IN FEET
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2002
EXISTING LEVEES
IOWA
MISSOURI
ILLINOIS
ATCHISON
KANSAS CITY
JEFFERSON CITY
ST. LOUIS
KANSAS
PROJECT AREA
SPRINGFIELD
OKLA
ARKANSAS
VICINITY MAP
50 0 50 100
SCALE IN MILES
BLUE RIVER BASIN
DODSON INDUSTRIAL DISTRICT
KANSAS CITY, MISSOURI
1 January 2002

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Blue River Channel, Kansas City, Missouri (Continuing)

LOCATION: The project is located along the Blue River and tributaries in Kansas City, Jackson County, Missouri, and extends from near its mouth (located at Missouri river mile 358.0) to 63rd Street, channel mile 12.5.

DESCRIPTION: The project plan consists of a channel modification along 12.5 miles of the Blue River channel providing flood protection for a once in 30-year flood and reducing flooding for less frequent events.

AUTHORIZATION: 1970 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: 9.0 to 1 at 6 5/8 percent.

TOTAL BENEFIT-COST RATIO: 3.1 to 1 at 6 5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent (FY 1979).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Supplemental Report dated 24 October 1990 to the General Design Memorandum and approved on 14 December 1990 at October 1990 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Estimated Federal Cost	$220,000,000	
Estimated Non-Federal Other Costs	32,500,000	
Cash Contribution $ 0		
Other Costs 32,500,000		
Total Estimated Project Cost	$252,500,000	
Allocations to 30 September 2001	$172,251,000	
Conference Allowance for FY 2002	10,400,000	
Allocation for FY 2002	8,738,000 1/	
Allocations through FY 2002	180,989,000	80
Allocation Requested for FY 2003	6,676,000	84
Programmed Balance to Complete after FY 2003	39,011,000	
Unprogrammed Balance to Complete after FY 2002	0	

STATUS: (1 Jan 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	78	Sep 2010

PHYSICAL DATA	
Bridge Alterations at Federal Cost:	
Railroad Bridges - Modify - 15	$23,868,000
Bridge Alterations at Non-Federal Cost:	
Highway Bridges - Modify - 4	$7,502,000
Channel Improvement: Length	
Main Stem, Blue River Channel	12.5 miles

1/ Reflects $1,662,000 reduction assigned as savings.

JUSTIFICATION: The Blue River basin lies completely in the Kansas City Metropolitan Region, with a 2000 population of 1,776,000. The basin drains an area of 272 square miles and is subject to cloudbursts, prolonged rainstorms, floods, and extended drought periods. The maximum flood of record in the basin occurred in September 1961 and caused an estimated $8 million in damages. An August 1982 flood caused an estimated $3.3 million in damages, and an October 1986 flood along the Brush Creek tributary of the river caused an estimated $209,000 in damages in the lower flood plain. A major flood occurred on the lower portion of the river in May 1990 and caused damages estimated at $100.8 million. The July 1993 flood was not severe in this basin, causing damages estimated at $60,000. The authorized project would have prevented all but minor damages caused by the 1961 event, and all damages caused by the later events. The channel project provides for about a 30-year level of protection to 3,400 acres in the lower basin, including the Blue River Valley Industrial District. Estimated annual average benefits, all flood control, based on 1 October 1990 prices, are $43.6 million, of which $41.2 million are existing benefits and $2.4 million are future benefits.

FISCAL YEAR 2003: The requested amount of $6,676,000 will be applied as follows:

Item	Amount
Continue relocation of railroads	$ 2,688,000
Continue construction of channel	3,206,000
Engineering and Design	342,000
Construction Management	440,000
Total	$6,676,000

NON-FEDERAL COSTS: Local interests are required to furnish without cost to the United States all lands, easements, and rights-of-way required for construction and subsequent maintenance of the project; hold and save the United States free from damages due to construction; perform without cost to the United States necessary highway, highway bridge, and utility alterations required in connection with this project; maintain and operate the project after completion in accordance with regulations prescribed by the Secretary of the Army; and adequately inform all affected persons, at least annually, that the project will not provide complete flood protection. The investment is broken down as follows:

Item	Amount
Lands and Damages	$18,286,000
Relocations	13,214,000
Contingencies	1,000,000
Total	$32,500,000

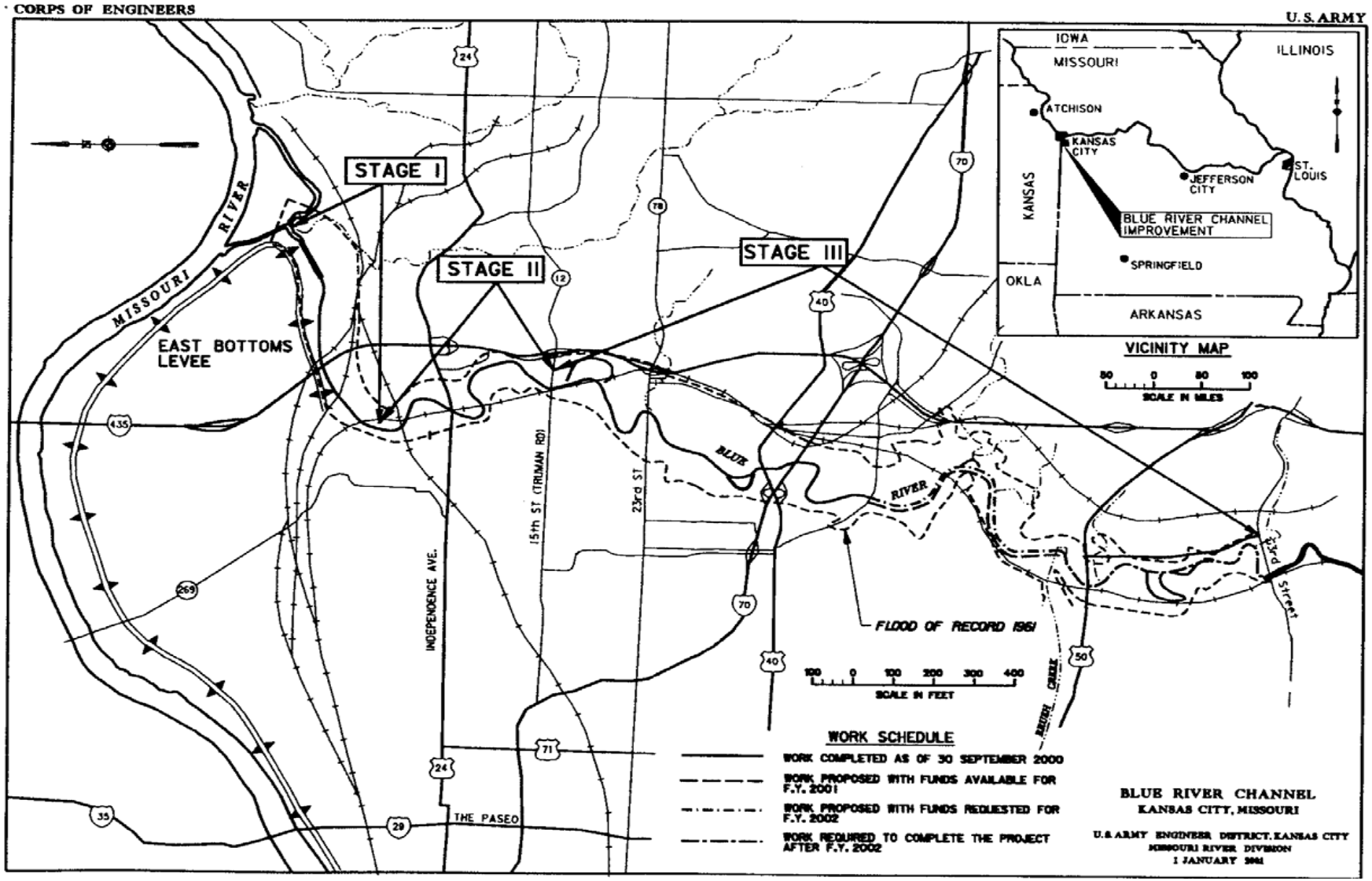
It is estimated that the average annual expenditure for operation, maintenance and replacements will total $82,000 (1 October 1998).

STATUS OF LOCAL COOPERATION: The Section 221 Agreement was signed by the Kansas City District Engineer on 8 September 1983. The City of Kansas City, Missouri, has provided all of the rights-of-way for Stages 1 and 2. Stage 3 right-of-way requirements have been provided to the city and acquisition is essentially complete. The current non-Federal cost estimate of $32,500,000 is the same as the latest estimate ($32,500,000) presented to Congress (FY 2002).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $220,000,000 the same as last presented to Congress (FY 2002).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final statement on Blue River Basin plan made in connection with preauthorization studies was filed with the Council on Environmental Quality (CEQ) on 13 November 1970. A more complete draft statement on the Blue River Basin plan, including specific information on the impacts of the Blue River Channel, was filed with the CEQ on 11 April 1974. The final statement was forwarded to HQUSACE on 24 October 1974, and was filed with the CEQ on 8 September 1975.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973, and funds to initiate construction were appropriated in FY 1979.



Division: Northwestern District: Kansas City Blue River Channel, Kansas City, Missouri

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Lower Columbia River Basin Bank Protection, Oregon and Washington (Continuing)

LOCATION: Ninety six locations along the Columbia River and its major tributaries in the reach from river mile 125 to the sea, in Oregon and Washington

DESCRIPTION: Entire project consists of approximately 224,000 linear feet of bank protection and stabilization using dumped stone, drift barriers and channel improvements.

AUTHORIZATION: 1950 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: The remaining benefit-remaining cost ratio is 1.8 at 2-1/2 percent.

TOTAL BENEFIT-COST RATIO: The total benefit-cost ratio is 1.8 to 1 at 2-1/2 percent

INITIAL BENEFIT-COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds was 1.4 to 1 at 2-1/2 percent (FY 1961)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved June 1990 at 1990 price levels.

SUMMARIZED FINANCIAL DATA		PCT. OF EST.	STATUS	ACCUM. FED COST	PERCENT (1 Jan 02)	COMPLETION COMPLETE	PHYSICAL SCHEDULE
Estimated Federal Cost		$28,000,000					
Programmed Construction		$22,693,000		Prior Work:			
Unprogrammed Construction		5,307,000		84 Locations		100%	
				Entire Project:			
Estimated Non-Federal Cost		2,300,000		96 Locations		85%	Indefinite
Programmed Construction		364,000					
Cash Contribution	$171,000						
Other Costs	193,000						
Unprogrammed Construction		1,936,000					
Cash Contribution	1,594,000						
Other Costs	342,000						

PHYSICAL DATA
Entire Project

Bank stabilization - dumped stone; total length approximately 224,000 linear feet

Division: Northwestern

District: Portland

Lower Columbia River Basin Bank Protection, Oregon and Washington

SUMMARIZED FINANCIAL DATA (CONTINUED)			ACCUM. PCT. OF EST. FED COST
Total Estimated Programmed Construction Cost	$23,057,000		
Total Estimated Unprogrammed Construction Cost	$7,243,000		
Total Estimated Project Cost	$30,300,000		
Allocations to 30 September 2001	$21,619,000		
Conference Allowance for FY 2002	100,000		
Allocation for FY 2002	84,000	1/	
Allocations through FY 2002	21,703,000		77%
Allocation Requested for FY 2003	100,000		78%
Programmed Balance to Complete after FY 2003	900,000		
Unprogrammed Balance to Complete after FY 2003	5,307,000		

1/ Reflects $32,000 reduction assigned as savings and slippage.

JUSTIFICATION: Bank protection improvements are necessary to prevent further erosion of existing flood control levees at critical locations along the Lower Columbia River and tributaries. The flood plain downstream from mile 125 includes much high-value agricultural and industrial property. Bank protection is needed to eliminate the threat to many levees protecting much of this area and for stabilization in other areas where bank erosion is critical. River current and wave wash have caused severe erosion which can be stopped only by construction of protective works. Annual flood control benefits are estimated to be $2,445,000 based on 1 October 1990 prices.

FISCAL YEAR 2003: The requested amount of $100,000 will be used for Planning, Engineering, and review of remaining sites.

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with requirements listed below.

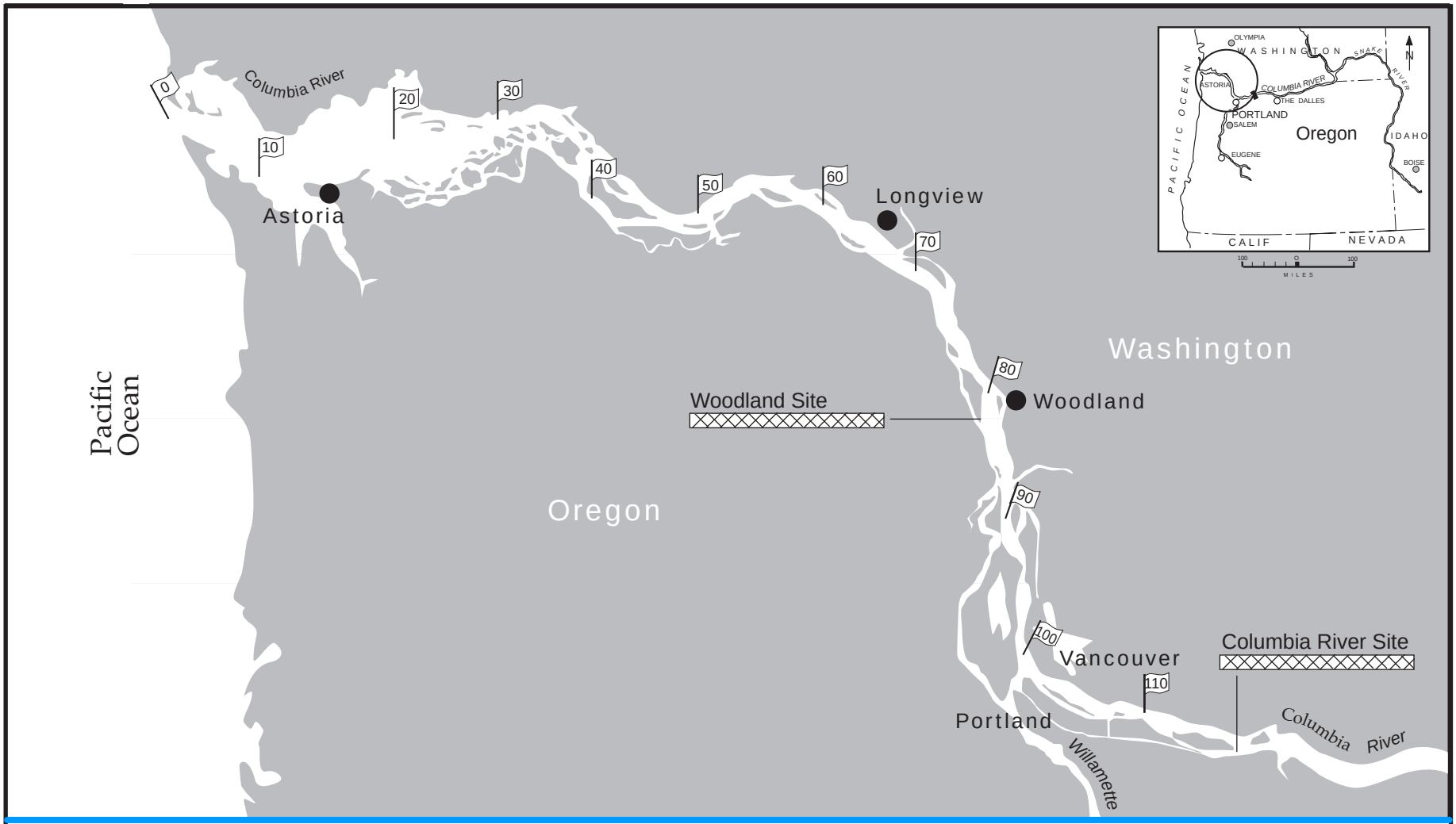
STATUS OF LOCAL COOPERATION: Multnomah County Drainage District Number 1 has agreed to sponsor the proposed Columbia River Sites. The estimated PCA approval is March 2003. Consolidated Diking Improvement District Number 2 of Cowlitz County Washington has agreed to be the sponsor of the proposed Woodland site. The estimated PCA approval date is March 2003.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) estimate of $28,000,000 remains unchanged from the latest estimate submitted to Congress (FY 2002).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact (FONSI) is scheduled to be signed on the Columbia River Sites by December 2002. A FONSI is scheduled to be completed on Woodland, Washington Site by December 2002.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1958 and for construction in FY 1961.

Division: Northwestern District: Portland Lower Columbia River Basin Bank Protection, Oregon and Washington



Schedule

- Work Completed as of September 2001
- Work Proposed With Funds Available for FY 2002
- Work Proposed With Funds Requested for FY 2003
- Work Required to Complete Project after FY 2003

Columbia River Basin

Lower Columbia River Bank Protection

Scale as Shown

US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002

APPROPRIATION TITLE: Construction, General (Flood Control)

PROJECT: Missouri National Recreational River, Nebraska and South Dakota (Continuing)

LOCATION: The Missouri River between Gavins Point Dam and Ponca State Park, Nebraska. This includes Cedar and Dixon Counties in Nebraska and Yankton, Clay, and Union Counties in South Dakota.

DESCRIPTION: Development of the river to protect and enhance the existing qualities which resulted in its classification as a National Recreational River under the Wild and Scenic Rivers System. The qualities include scenic, recreational, fish and wildlife, and cultural values of the river reach. Development includes recreation facilities, river access sites, threatened and endangered species habitat, erosion protection, and acquisition of scenic easements.

AUTHORIZATION: Section 707 of the National Parks and Recreation Act of 1978.

REMAINING BENEFIT-REMAINING COST RATIO: Not available because monetary benefits have not been quantified.

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost	$21,000,000
Programmed Construction	$21,000,000
Unprogrammed Construction	0
Estimated Non-Federal Cost	3,626,000
Programmed Construction	
Cash Contribution	621,000
Other Costs	3,005,000
Estimated Non-Federal Cost	0
Unprogrammed Construction	
Cash Contributions	0
Other Costs	0

STATUS (1 Jan 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Myron Grove River Access	100	
Habitat for Threatened and Endangered Species (Phase I & II)	100	
Yankton-Riverside Park Access Recreation Site	100	
Ponca Erosion Protection	100	
Ponca Resource Education Center	20	Sep 2003
Entire Project	23	Sep 2008

SUMMARIZED FINANCIAL DATA (continued):

Total Estimated Programmed Construction Costs	$ 24,626,000
Total Estimated Unprogrammed Construction Costs	0
Total Estimated Project Cost	$ 24,626,000

PHYSICAL DATA

Length: 59 continous miles of uncontrolled river. (RM 811 to RM 752) immediately below Gavins Point Dam

Division: Northwestern

District: Omaha

Missouri National Recreational River, Nebraska and South Dakota

SUMMARIZED FINANCIAL DATA (continued):

Total Estimated Programmed Construction Costs	$ 24,626,000		
Total Estimated Unprogrammed Construction Costs	0		
Total Estimated Project Cost	$ 24,626,000		
Allocations to 30 September 2001	$ 4,548,000	PCT. OF EST.	
Conference Allowance for FY 2002	1,800,000	FED. COST	
Allocation For FY 2002	3,012,000	**1/**	
Allocations through FY 2002	7,560,000	36	
Allocation Requested for FY 2003	750,000	40	
Programmed Balance to Complete after FY 2003	12,690,000		
Unprogrammed Balance to Complete after FY 2003	0		

PHYSICAL DATA

Length: 59 continous miles of uncontrolled river. (RM 811 to RM 752) immediately below Gavins Point Dam downstream to Ponca State Park

Area: Approximately 19,600 acres within the designated corridor

1/ Reflects $288,000 reduction assigned as savings and slippage and $1,500,000 reprogrammed to the project.

JUSTIFICATION: Designation as a Recreational River will preserve outstanding and important values of the area. Presently, several federally listed (endangered or threatened) species regularly utilize the area, such as the least tern, pallid sturgeon, bald eagle, and the piping plover. The Ponca Restoration Study and other environmental studies will identify habitat restoration opportunities beneficial to these and other species. Monitoring and evaluation (M&E) will be accomplished for this 59 miles of the Missouri River ecosystem, including M&E for the above listed threatened and endangered species and their habitat, and this will make it possible to manage the river and its resources, and will allow focusing restoration efforts in ways that will most efficiently help to recover the Missouri River ecosystem and its listed species.

The Recreational River designation has the potential to provide additional opportunities for recreation and river access. Opportunities such as the Ponca Resource and Education Center's design and construction will further contribute to the recreational and interpretative opportunities within the reach. The finalization of the General Management Plan (GMP) in FY 99 has increased the potential for additional partnering opportunities for recreational development and river access.

Continuation of erosion control in the Recreational River reach is provided for by the designation, to the extent it is supported by local interests, and is compatible with recreational river values. Planning and design of erosion control structures as needed to protect the values for which the river was designated will continue to be pursued.

FISCAL YEAR 2003: The requested amount of $750,000 will be applied as follows:

Item	Amount
Section 7 Biological Opinion Activities	$ 245,000
Planning, Engineering and Design (Cottonwood Regeneration)	115,000
Planning, Engineering and Design (Ponca Restoration Study)	50,000
Complete Construction Activities, Ponca Resource and Education Center	85,000
Complete Design Activities at 3 Additional Sites	150,000
Continue Development of Real Estate Design Memorandum	50,000
Programs & Project Management Activities	55,000
Total	$ 750,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation:	Payments During Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Myron Grove River Access		
Pay one-half of the separable costs of recreation facilities and bear all costs of operation, maintenance, and replacement of recreation facilities:	$ 33,000	$ 13,000
Total Non-Federal Costs	$ 33,000	$ 13,000
Ponca Research and Education Center		
Pay one-half of the separable costs of recreation facilities and bear all Costs of operation, maintenance, and replacement of recreation facilities:	$ 2,986,000	$ 350,000
Total Non-Federal Costs	$ 2,986,000	$ 350,000
Yankton Riverside Park		
Pay one-half of the separable costs of recreation facilities and bear all costs of operation, maintenance, and replacement of recreation facilities.	$ 607,000	$ 77,000
Total Non-Federal Costs	$ 607,000	$ 77,000
General Work		
Pay 25 percent of the first costs of appropriate fish and wildlife work and all of the costs of operation, maintenance, and replacement of fish and wildlife items.	2/	2/

2/ Costs to be developed as planning on project proceeds.

NON-FEDERAL COSTS (continued):

Pay 100 percent of the costs allocated to prevention of erosion to private roads.	2/	2/
Pay the appropriate percent of the cost for prevention of erosion based on purpose for the acquisition of interest in the lands.	2/	2/
Total Non-Federal Costs	2/	2/

2/ Costs to be developed as planning on project proceeds.

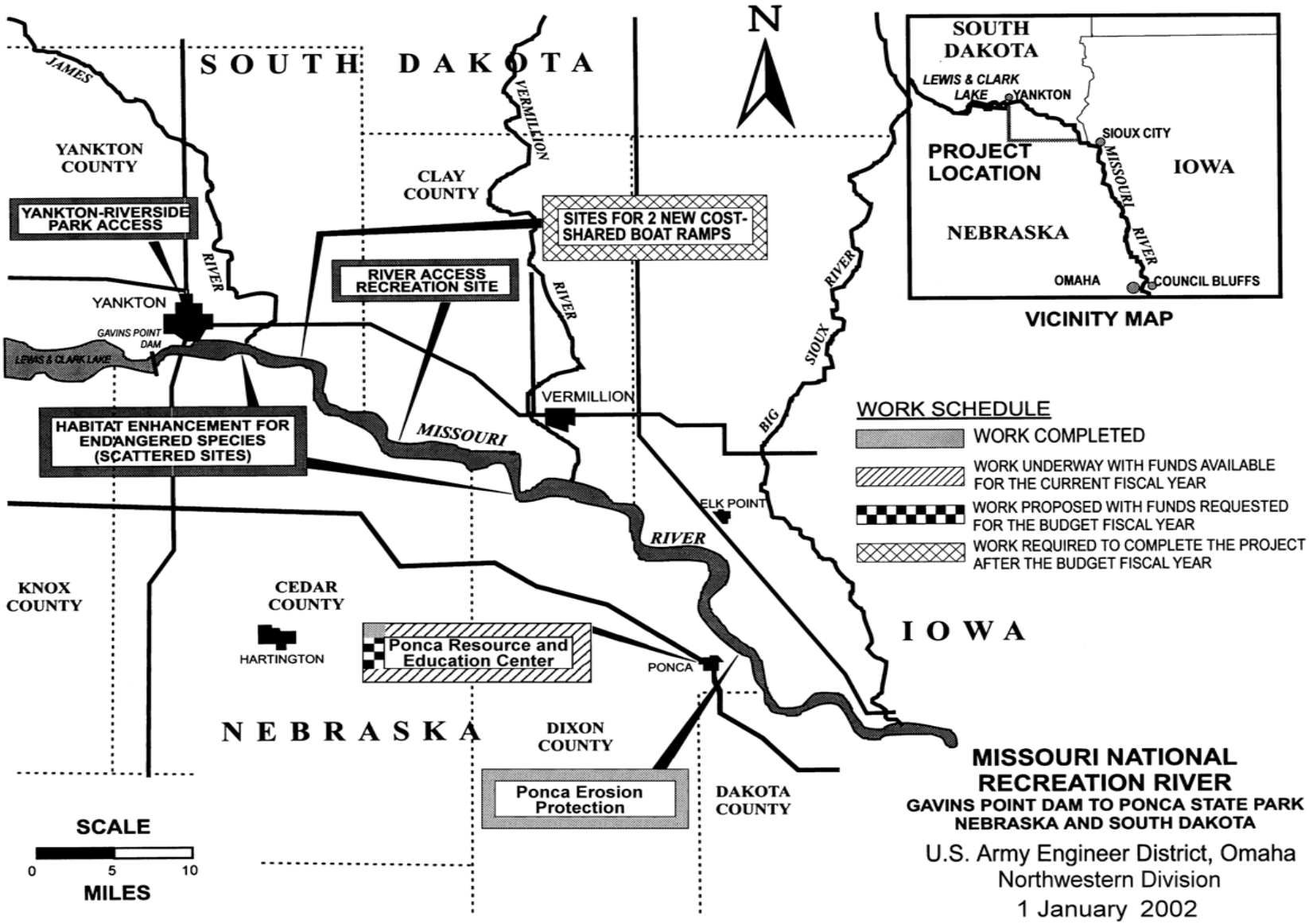
STATUS OF LOCAL COOPERATION: In general, all agencies, local citizens and groups are in favor of the project. Local interests will be contacted as specific requirements are developed. Potential sponsors are the South Dakota Game, Fish and Parks Department; Union, Clay, and Yankton Counties in South Dakota; the Lewis and Clark Natural Resources District; Nebraska Game and Parks Commission and Cedar and Dixon Counties in Nebraska. An agreement pursuant to Section 215 of the Flood Control Act of 1968 was signed with the city of Yankton in 1989 for the construction of Riverside Park in Yankton. Construction was completed 1 June 1991. A cost sharing contract with the State of South Dakota for the Myron Grove access site was signed on 26 June 1986, and construction was completed in June 1987. A Project Cooperation Agreement with the Nebraska Department of Natural Resources for the Ponca Resource and Education Center was signed on 30 May 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $21,000,000 is unchanged from the latest estimate presented to Congress (Fiscal Year 2002) and is limited to that amount by the project authorization.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on 12 August 1980. A second EIS has been prepared by the National Park Service and the Corps in conjunction with the Park Service General Management Plan (GMP). A joint Record of Decision (ROD) implementing the second EIS was signed on December 17, 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1980. A cooperative agreement between the U.S. Department of the Interior and the U.S. Department of the Army for implementation of this project was signed on 1 February 1980. Funds to initiate construction were appropriated in Fiscal Year 1986 with Federal cost limited to $21,000,000 by law.

The final GMP/EIS provides opportunities for potential sponsors to participate in cost shared recreational development activities for the upcoming Lewis and Clark bicentennial in the year 2004.



Division: Northwestern

District: Omaha

Missouri National Recreational River, Nebraska and South Dakota

4 February 2002

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Missouri River Levee System, Iowa, Nebraska, Kansas, and Missouri (Active Units) (Continuing)

LOCATION: Along both sides of the Missouri River, Sioux City, Iowa, to the Mouth.

DESCRIPTION: A series of levee units and appurtenant works along both sides of the Missouri River from Sioux City, Iowa, to the Mouth, for protection of agricultural lands and small communities against floods.

AUTHORIZATION: 1941 and 1944 Flood Control Acts

REMAINING BENEFIT - REMAINING COST RATIO: Unit L385 - 2.9 to 1 at 2 1/2 percent; Unit L15 - 1.9 to 1 at 6 7/8 percent

TOTAL BENEFIT-COST RATIO: Information is not available due to completion of individual units at various times since 1948.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 2 1/2 percent (FY 1948)

BASIS OF BENEFIT-COST RATIO: Unit L385 benefit and cost data is at 1 October 2000 values and is based on an updated benefit-cost analysis accomplished in 2000. The B/C ratio for L142 is 2.2 to 1 based on the General Reevaluation Report dated April 2001. Unit L15 benefit and cost data is at 1 October 2000 values and is based on the General Reevaluation Report approved 3 April 2000.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost			$152,912,000 1/
Estimated Non-Federal Cost			48,496,000 1/ 2/
Cash Contributions		$20,833,000	
Required	$ 7,083,220		
Voluntary	13,749,780		
Other Costs		27,663,000	
Total Estimated Project Cost			$201,408,000 1/

PHYSICAL DATA

LEVEES	
Average Height	14 feet
Length	468 miles
Area Protected	367,500 acres

1/ Entire Project (Completed and Active Units)

2/ In addition, numerous flood control works have been constructed over many years by individuals and groups as land along the Missouri River has developed for agricultural use. The total cost of these improvements is unknown.

SUMMARIZED FINANCIAL DATA (Continued)			ACCUM PCT OF EST FED COST
Allocations to 30 September 2001	$104,213,000		
Conference Allowance for FY 2002	9,200,000		
Allocation for FY 2002	7,632,000	3/	
Allocations thru FY 2002	111,845,000		73
Allocation Requested for FY 2003	6,978,000		78
Programmed Balance to Complete after FY 2003	18,540,000		
Unprogrammed Balance to Complete after FY 2003	15,549,000		

3/ Reflects $1,468,000 reduction assigned as savings and slippage and $100,000 reduction by reprogramming action.

STATUS (1 Jan 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Completed Units:		
L624-627, R616, L611-614, R613, L601, L594, R580, L575, R573, R562, L550-561, R548, L536, R520, R512-513, R500, Kimsey-Holly Creek, L497, L488, R482, L476, R460-471, L455, L443-448, R440, L408, L400, R351, & L246	100	Complete
Active Units:		
Riverside-Quindaro Bend Levee District (L385)	31	Being Determined
Jefferson City (L142)	12	Indefinite
Consolidated North County Levee District (L15)	40	Being Determined
Entire Project (Completed and Active Units)	68	Being Determined

JUSTIFICATION: During FY 2001, Federal reservoirs and levees within Missouri River Division boundaries prevented an estimated $327 million in damages. Since completion, these projects have prevented damages estimated to total $27.2 billion through FY 2001. Annual benefits are all flood control.

FISCAL YEAR 2003: The requested amount of $6,978,000 will be applied as follows:

Item	Amount
Continue Construction for Unit L385	$ 4,250,000
Continue Planning, Engineering and Design for Unit L142	758,000
Initiate Construction for Unit L15	1,970,000
Total	$6,978,000

NON-FEDERAL COSTS: The total non-Federal project cost is estimated at $48,496,000. For the completed units, non-Federal sponsors provided lands, easements, rights-of-way and relocations valued at $8,324,000, and also contributed $400,000 of interior drainage work. The estimated non-Federal costs for units L385, L142 and L15 totals $39,772,000 and the details of the non-Federal costs are shown below. For the entire project the sponsors are also providing operation, maintenance, and replacements costs estimated at a current annual cost of $817,000 (1 October 2000).

Remaining Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Unit L385 - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and in accordance with the Project Cooperation Agreement signed 25 September 1997, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	$5,465,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	5,022,000	
Contingencies	1,833,000	
Pay 8 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L385, and bear all costs of operation maintenance, and replacement of flood control facilities	5,458,000	$40,000 (1 October 2000)
Total Non-Federal Required Costs	17,778,000	
In addition voluntary special cost sharing will be provided by the non-Federal interests to pay 100 percent of costs allocated to land development	13,512,000	
Total Non-Federal Costs During Construction (L385)	31,290,000	

The non-Federal sponsor understands that payments are required during project construction.

Remaining Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	NON-FEDERAL COSTS: (Continued) Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Unit L142 - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	$2,342,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	2,458,000	
Contingencies	75,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L142, and bear all costs of operation, maintenance, and replacement of flood control facilities	1,252,000	$41,000 (1 October 2000)
Total Non-Federal Costs During Construction (L142)	6,127,000	
The non-Federal sponsor understands that payments are required during project construction.		

NON-FEDERAL COST: (Continued)

Remaining Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Unit L15 - In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:		
Provide lands, easements and rights-of-way	$1,760,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	0	
Contingencies	185,000	
Pay 4 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent of Unit L15, and bear all costs of operation, maintenance, and replacement of flood control facilities	410,000	$4,900 (1 October 2000)
Total Non-Federal Costs During Construction (L15)	2,355,000	

The non-Federal sponsor understands that payments are required during project construction.

STATUS OF LOCAL COOPERATION:

Unit L385 - Sponsor of Unit L385 is the Riverside-Quindaro Bend Levee District. The sponsor agreed to assume additional voluntary cost sharing for costs associated with land development in the Quindaro Bend portion of the project to obtain Washington-level project support. Unit L385 was approved for a new construction start in FY 1994. The Limited Reevaluation Report was approved 24 April 1997. The Project Cooperation Agreement was executed 23 September 1997.

Unit L142 – By letter dated 11 January 1999 from the Mayor of Jefferson City, Missouri, and a City Council Resolution dated 2 November 1998, the City has expressed a commitment to sponsor the project. They have reviewed the final General Reevaluation Report and understand the requirements therein. Scheduled Project Cooperation Agreement execution date is second quarter of Fiscal Year 2003.

Unit L15 – Sponsor of Unit L15 is the Consolidated North County Levee District. P. L. 106-377, 27 October 2000, included authorization to initiate construction. The Project Cooperation Agreement was executed in the fourth quarter of FY 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $152,912,000 for the entire Project (Completed and Active Units) is an increase of $518,000 from the latest estimate ($152,394,000) presented to Congress (FY 2002). This change is due to price escalation on construction features and changes in projected inflation rates.

STATUS OF ENVIRONMENTAL IMPACT STATEMENTS: The final Environmental Impact Statement for Unit L385 was filed with the Environmental Protection Agency on 18 November 1983.

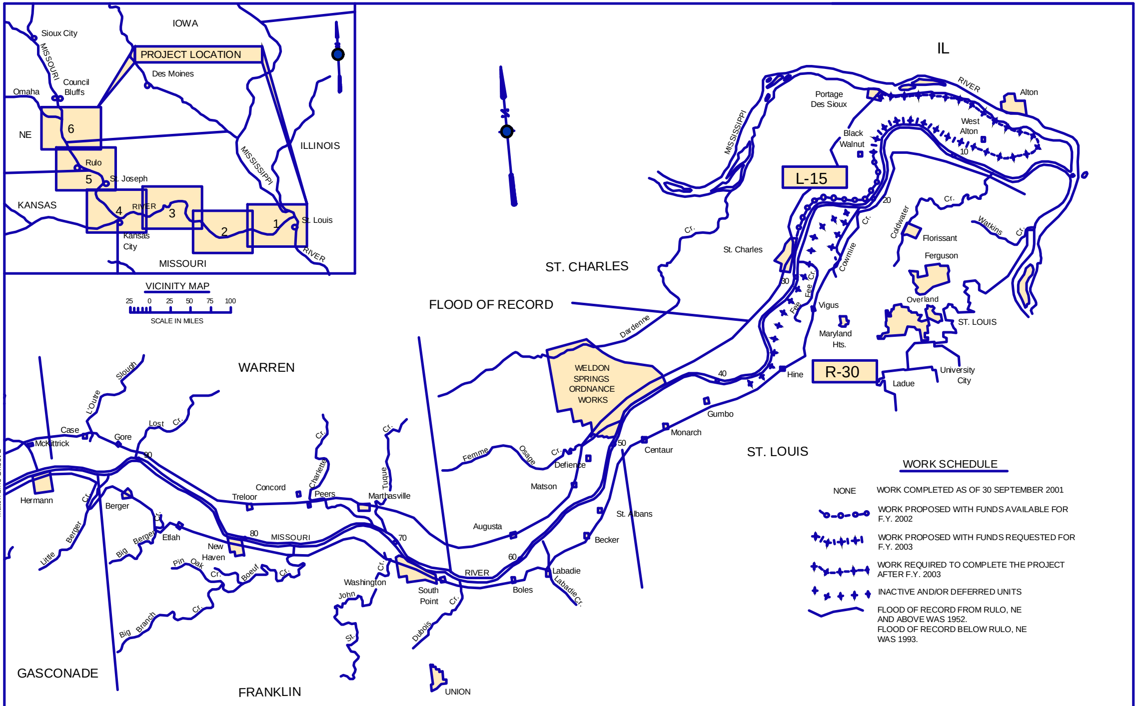
OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1946 and to initiate construction in FY 1948.

Unit L385: Construction is scheduled to start in FY 2002 for this unit.

Unit L142: This unit was reclassified to the active category in May 1991 based on the preliminary results of an Initial Appraisal Report prepared in response to a request from the City of Jefferson City, Missouri. The Initial Appraisal Report approved in August 1991, concluded that a flood control project could be feasible based on preliminary benefit and cost data and recommended proceeding with detailed planning, engineering and design. Funds to initiate preparation of a General Reevaluation Report were appropriated in FY 1993. The July 1993 flood event devastated the entire area being evaluated. A new economic survey, study of alternate levee alignments, and new cost estimates were required as a result of the flood damages. After the flood of 1993, several properties were bought out under the Federal Emergency Management Hazard Mitigation Grant Program. Cooperating Federal and State agencies have worked extensively on this challenging issue. The GRR indicates that a project is feasible and can be economically justified. The preparation of plans and specifications has been initiated. Construction is not yet scheduled.

CORPS OF ENGINEERS

U. S. ARMY



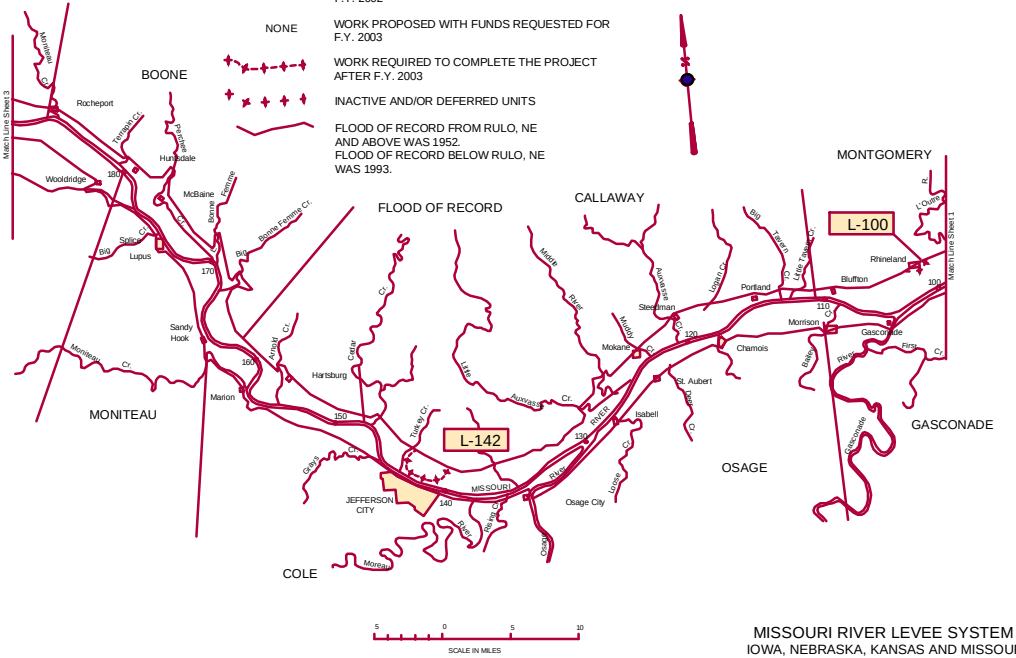
MISSOURI RIVER LEVEE SYSTEM
IOWA, NEBRASKA, KANSAS AND MISSOURI
SHEET 1 OF 3
U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
4 FEBRUARY 2002

CORPS OF ENGINEERS

U. S. ARMY

WORK SCHEDULE

NONE	WORK COMPLETED AS OF 30 SEPTEMBER 2001
NONE	WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2002
NONE	WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2003
	WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2003
	INACTIVE AND/OR DEFERRED UNITS
	FLOOD OF RECORD FROM RULO, NE AND ABOVE WAS 1952. FLOOD OF RECORD BELOW RULO, NE WAS 1993.



MISSOURI RIVER LEVEE SYSTEM

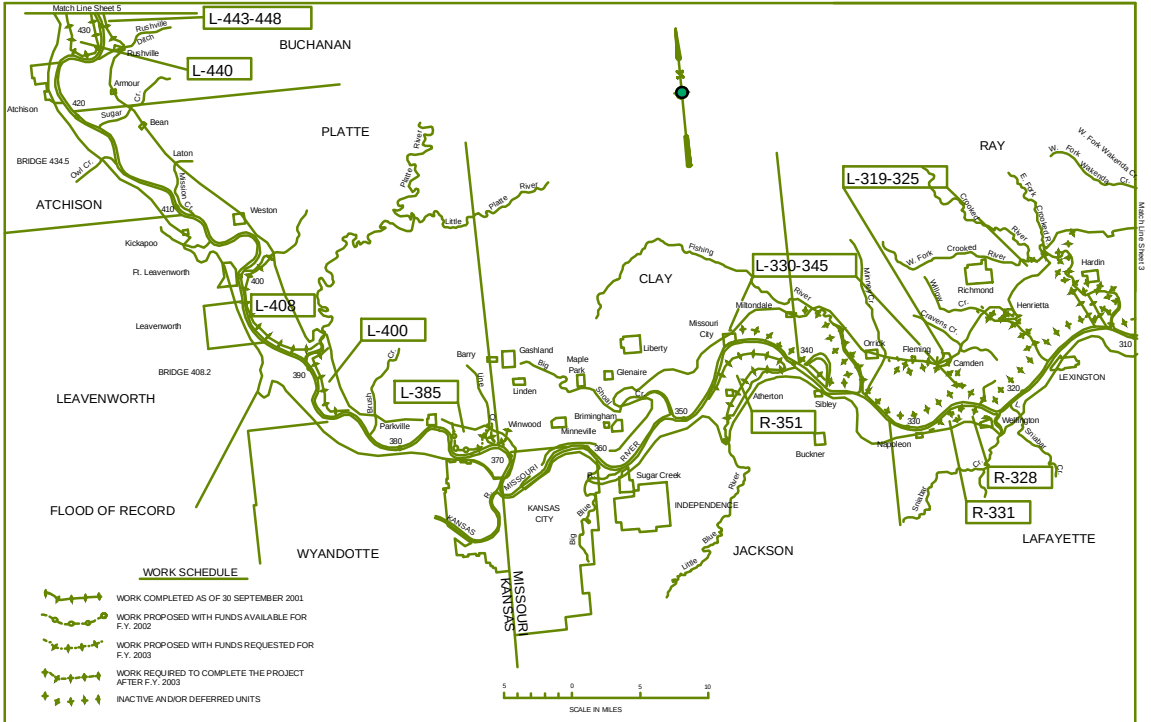
IOWA, NEBRASKA, KANSAS AND MISSOURI

SHEET 2 OF 3

U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
4 FEBRUARY 2002

CORPS OF ENGINEERS

U. S. ARMY



MISSOURI RIVER LEVEE SYSTEM

IOWA, NEBRASKA, KANSAS AND MISSOURI

SHEET 3 OF 3

U. S. ARMY ENGINEER DISTRICT, KANSAS CITY
NORTHWESTERN DIVISION
4 FEBRUARY 2002

APPROPRIATION TITLE: Construction, General - Flood Control, Local Protection

PROJECT: Perry Creek, Iowa (Continuing)

LOCATION: The Perry Creek basin is located in Woodbury and Plymouth Counties in northwestern Iowa. The downstream 5 miles of the basin lies within the corporate limits of Sioux City, Iowa, and drains the central portion of the city.

DESCRIPTION: The project consists of 14,800 linear feet of grass and rock lined channel, 1,500 linear feet of new conduit, modification of 710 linear feet of existing conduit, a concrete stilling basin and a basin-wide flood warning system.

AUTHORIZATION: Water Resources Development Act of 1986, Section 401a.

REMAINING BENEFIT-REMAINING COST RATIO: 1.99 to 1 at 8 1/4 percent

TOTAL BENEFIT-COST RATIO: 1.11 to 1 at 8 1/4 percent

INITIAL BENEFIT-COST RATIO: 1.09 to 1 at 8 1/4 percent (FY 1994)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in July 1992 at October 1990 price levels and were reevaluated in FY 1996.

SUMMARIZED FINANCIAL DATA:

			ACCUM. PCT. OF EST. FED COST	STATUS (1 JAN 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 46,735,000				
Estimated Non-Federal Cost		25,165,000		Entire Project	82	July 2005
Cash Contribution	$ 340,000					
Other Costs	24,825,000					
Total Estimated Project Cost		71,900,000				
Allocations to 30 September 2001		38,285,000				
Conference Allowance for FY 2002		4,000,000				
Allocation for FY 2002		513,000 1/				
Allocations through FY 2002		38,798,000	83			

1/ Reflects $639,000 reduction assigned as savings and slippage and $2,848,000 reprogrammed from the project.

SUMMARIZED FINANCIAL DATA (continued):

		ACCUM PCT OF EST FED COST
Allocation Requested for FY 2003	$ 4,000,000	92
Programmed Balance to Complete After FY 2003	3,937,000	
Unprogrammed Balance to Complete After FY 2003	0	

PHYSICAL DATA

Relocations:
Roads, Utilities Structures and Bridges
Demolitions:
13 roadways
1 railroad
Replacements:
7 roadways
1 railroad
New:
2 roadways
Not replaced:
4 roadways

Channel:
2.8 miles
Conduit:
2,210 linear feet
Stilling Basin:
132 linear feet, concrete
Recreation Trail:
22,500 linear feet, asphalt
Improvements:
135 Residences
51 Commercial properties

JUSTIFICATION: The project will provide urgently needed 100-year flood protection to the metropolitan and downtown areas of Sioux City, Iowa. The flood problem is severe under the present stage of urban development. Between 1892 and 1997, 26 floods have occurred on Perry Creek with very little warning time. Ten of these floods were considered to be major. The floods of 18-19 May 1990 and 22-23 May 1990 produced damages estimated between $9,000,000 and $11,000,000. Average annual flood damages are estimated at $5,851,000, and the project will reduce the flood damage potential by approximately 90 percent. The estimated average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$ 5,747,000
Recreation	162,000
Conduit Cost Savings	560,000
Advance Replacement of Bridges	84,000
Total	$ 6,553,000

FISCAL YEAR 2003: The requested amount of $4,000,000 will be applied as follows:

Item	Amount
Continue Phase IV Conduit and Channel Construction	$ 3,880,000
Construction Management	120,000
Total	$ 4,000,000

NON-FEDERAL COST: In accordance with the project authorization and the cost sharing policies contained in Section 103(a), (b), (c), (h) and (m) of the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirement of Local Cooperation	Payment during Construction	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	$ 12,237,000	
Relocate utilities, buildings, roads, bridges (except railroad bridges), and other facilities, where necessary for construction of the project.	12,588,000	
Bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities		$ 29,800
Pay one-half of the separable cost allocated to recreation, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	311,000	1,600
Pay 25 percent of the costs allocated to non-structural flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement.	29,000	2,600
Total Non-Federal Costs	$ 25,165,000	$ 34,000

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the city of Sioux City, Iowa to sponsor the Perry Creek flood control project was executed on 12 March 1995. The current non-Federal cost estimate of $25,165,000, which includes a cash contribution of $340,000, is an increase of $224,000 from the non-Federal cost estimate of $24,941,000 noted in the PCA, which included a cash contribution of $161,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $46,735,000 is an increase of $195,000 from the latest estimate ($46,540,000) presented to Congress (FY 2002). This change includes the following items:

Item	Amount
Price Escalation on Construction Features and Changes in Projected Inflation Rates	$ + 206,000
Other Estimating Adjustments	- 11,000
Total	$ +195,000

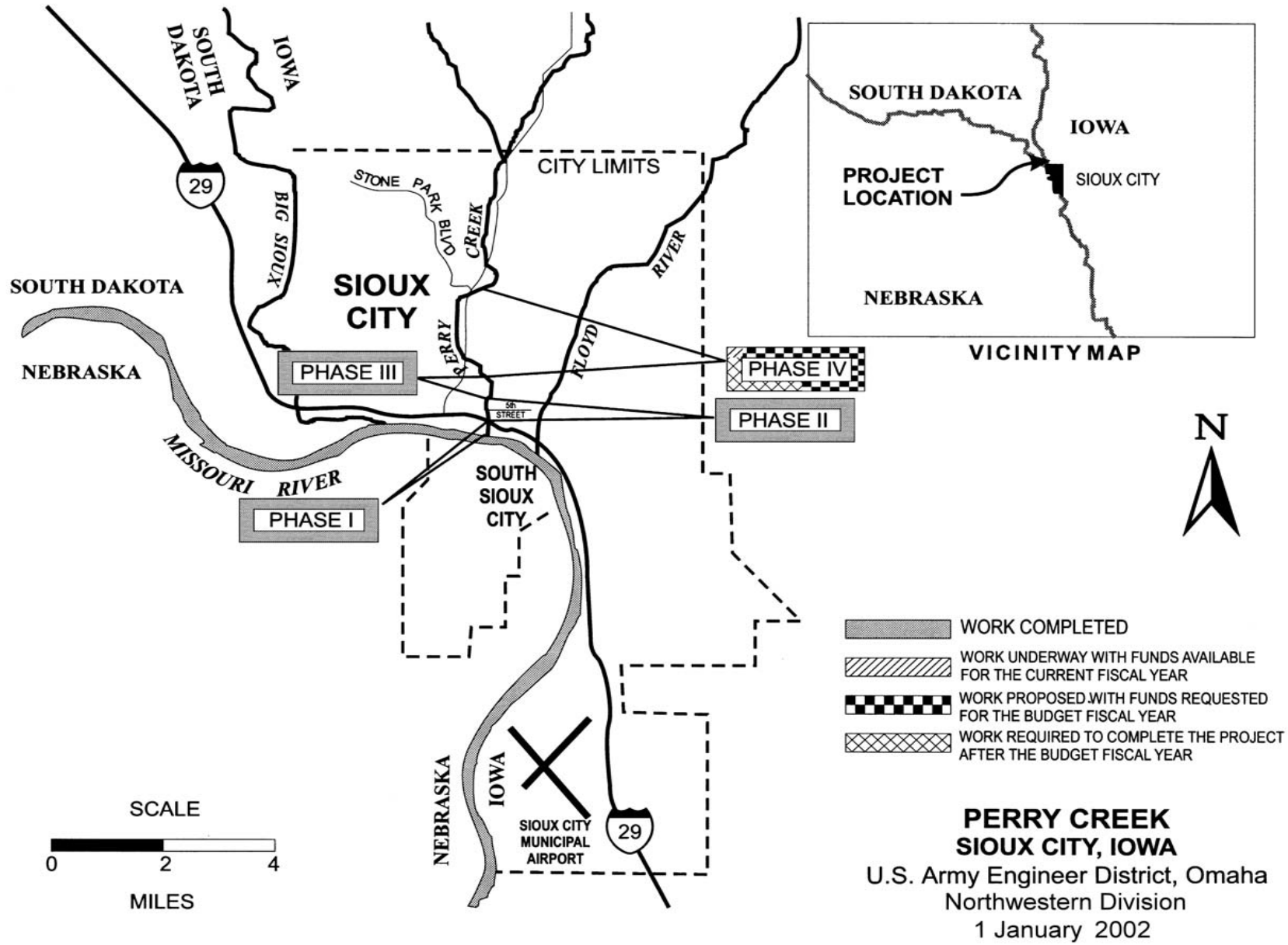
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: All comments on the draft EIS have been received and reviewed. All issues have been addressed in the final Supplemental 1 to the Final EIS filed with EPA on 17 July 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1995.

The ability to pay provisions of WRDA of 1986 have been modified by rule changes published in the Federal Register on January 26, 1995. The new provisions allow elimination of the 5 percent cash contribution if both of the following are met 1) LERRD comprise 35 percent or more of the total project cost and 2) the per capita cost exceeds $300 per person. The city of Sioux City, Iowa meets both of the requirements to waive the 5 percent cash contribution.

The mitigation portion of the project is estimated to cost $25,000.

Funds to initiate construction were appropriated in Fiscal Year 1995.



Division: Northwestern District: Omaha Perry Creek, Iowa

4 February 2002

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Flood Control)

PROJECT: Mt. St. Helens Sediment Control, Washington (Continuing)

LOCATION: A sediment retention structure on the North Fork Toutle River, 3 miles upstream from its confluence with the Green River; a Fish Collection Facility located on the North Fork Toutle River, 8,500 feet downstream of the Sediment Retention Structure; levee improvements at Kelso, Washington on the Cowlitz river (river mile 3 to river mile 8); and dredging in the Cowlitz River (river mile 0 - to river mile 20); all located in Cowlitz County, southwest Washington. The river systems impacted by the project include the Toutle, Cowlitz and a portion of the Coweeman River. Most of the population affected by the problems reside in the communities of Longview, Kelso, Lexington and Castle Rock, Washington.

DESCRIPTION: An earth and rock fill sediment retention structure with a spillway height of 125 feet, length of 1,800 feet with a retention capacity of 258 million cubic yards of sediment; a barrier type fish trap facility with a length of 300 feet and a 210 foot fish ladder; levee raise and improvements on the Cowlitz River at Kelso, WA; and dredging in the Cowlitz River from the mouth to river mile 20.

AUTHORIZATION: Supplemental Appropriations Act, 1985, PL 99-88.

REMAINING BENEFIT - REMAINING COST RATIO: The remaining benefit-remaining cost ratio is 6.9 to 1 at 8-5/8 percent.

TOTAL BENEFIT - COST RATIO: The total benefit cost ratio is 2.7 to 1 at 8-5/8 percent.

INITIAL BENEFIT - COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1986) is 3.0 to 1 at 8-5/8 percent. The benefit to cost ratio is based on the project functioning independently.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation reported in the Chief of Engineers Report, April 1985 at 1988 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$199,500,000	
Programmed Construction	$117,692,000		
Unprogrammed Construction	81,808,000		
Estimated Non-Federal Cost		24,600,000	
Programmed Construction		24,600,000	
Cash Contribution	$ 3,600,000		
Other	21,000,000		
Unprogrammed Construction		0	
Cash Contribution	0		
Other	0		

STATUS: (1 Jan 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Sediment Retention Structure	100	Feb 90
Dredging	100	Mar 90
Future Dredging	0	Unscheduled
Entire Project	60	Indefinite

Division: Northwestern District: Portland Mt. St. Helens Sediment Control, WA

SUMMARIZED FINANCIAL DATA (Continued)

			PHYSICAL DATA
Total Estimated Programmed Construction Cost	142,292,000		
Total Estimated Unprogrammed Construction Cost	81,808,000		Dam: Type - Earth and Rockfill
			Spillway Height - 125 feet;
Total Estimated Project Cost	224,100,000		Length - 1,800 feet
			Spillway Width - 400 feet
		ACCUM. % OF EST FED COST	Fish Facility: 300 feet long, concrete with stilling basin
			Fish Ladder - 210 feet long by 6 feet wide, concrete
Allocations to 30 September 2001	116,440,000 1/		Lands and Damages: Acres -
Conference Allowance for FY 2002	545,000		5,374 (Sediment Retention
Allocation for FY 2002	458,000 2/		Structure)
Allocations Through FY 2002	116,898,000	59%	1,300 (Disposal Sites for
Allocation Requested for FY 2003	281,000	59%	Dredging)
Programmed Balance to Complete after FY 2003	513,000		25 (Levee Improvements)
Unprogrammed Balance to Complete after FY 2003	81,808,000		Ultimate Sediment Capacity:
			258 million cubic yards

1/ Includes $2,953,000 General Investigation funds.
2/ Reflects a $87,000 reduction assigned as savings and slippage.

JUSTIFICATION: The eruption of Mt. St. Helens in 1980 resulted in the movement of sediment creating a threat of flooding and navigation disruption in southwestern Washington. With projected future erosion of the debris avalanche and sediment movement, there exists a continuing threat of flooding, with the largest amount of damages occurring to the community of Kelso and to the transportation corridor crossing the Toutle River (Interstate Highway I-5, and Burlington-Northern Railway line). Lesser damages would occur to the communities of Longview, Lexington and Castle Rock. The potential disruption of navigation on the Columbia River is considered to be negligible under average sediment conditions. Eventually up to 550 million cubic yards would probably be eroded from the debris avalanche. The Cowlitz River was last dredged in November 1989. Since then the river channel has remained stable or tended to scour.

In 1997, the sediment behind the SRS reached the last row of pipes in the outlet structure and it was closed in 1998. Flows from the pool now are released through the spillway, which may have an impact on downstream deposition of sediment and resultant flood protection. Additional studies, using current updated data are being evaluated to predict if the new operation at the SRS will result in a change in downstream deposition. These studies were anticipated in the feasibility phase, which was used as a basis for project authorization. The average annual benefits are estimated to be $29,548,000 (October 1988 price level). In addition to the benefit of preventing flood damages, the project will reduce the costs for providing temporary emergency flood protection (under PL 98-63) resulting from the sediment problem. Congressionally mandated levels of flood protection are 167, 143, 167 and 188 years for Longview, Kelso, Lexington and Castle Rock, respectively, over the 50-year project life.

Annual Benefits	Amount
Flood Damage Prevention	$15,558,000
Dredging Savings	13,990,000
Total	$29,548,000

FISCAL YEAR 2003: The requested amount of $281,000 will be used for Engineering studies.

NON-FEDERAL COST: In accordance with the agreement between the United States of America and the State of Washington for local cooperation at, along and near the Cowlitz and Toutle Rivers, Cowlitz County, State of Washington, the total estimated non-federal cost for construction is $24,600,000 including allowances for inflation. The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	PAYMENTS DURING CONSTRUCTION	ANNUAL OPERATION MAINTENANCE AND REPLACEMENT COSTS
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$16,200,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	400,000	
Mitigation for dredging operations	4,400,000	$846,000
Sales & Use Tax Offset from the State of Washington	3,600,000	
Total Non-Federal Payments During Construction	$24,600,000	

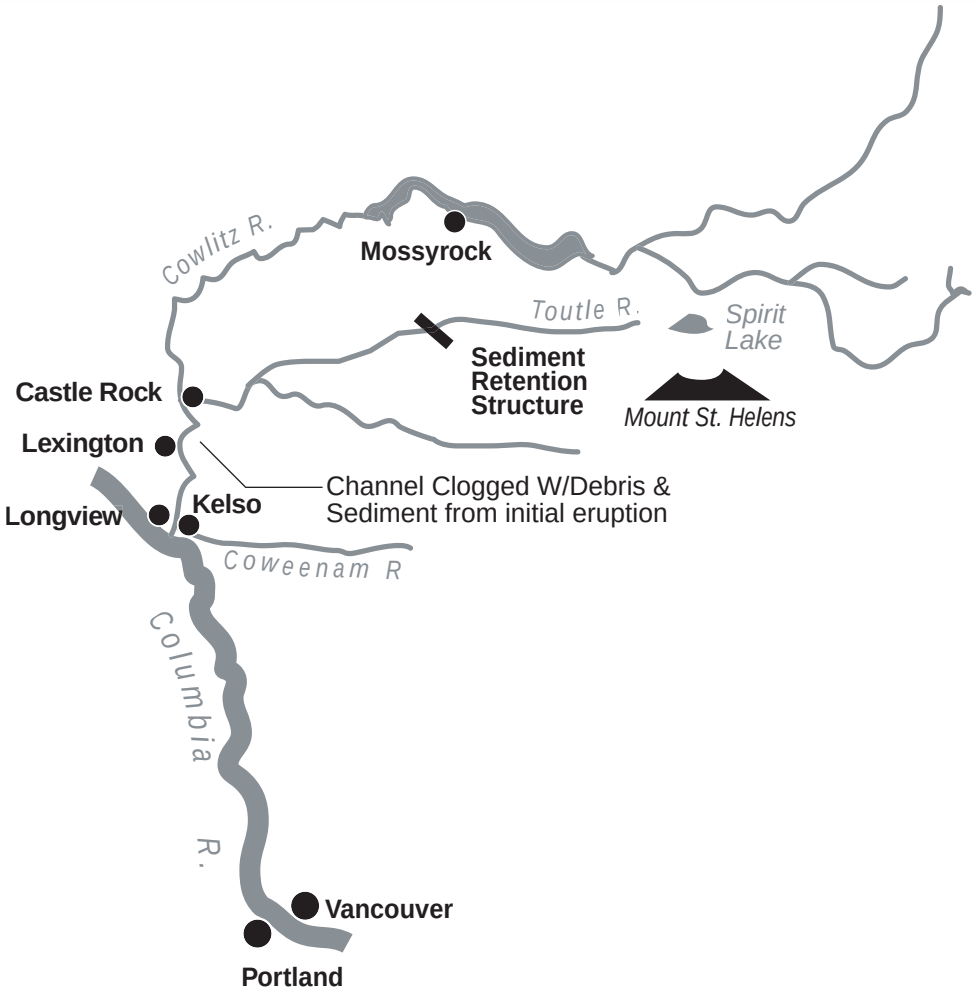
STATUS OF LOCAL COOPERATION: A local cooperation agreement (LCA) for the Sediment Control project was signed on 26 April 1986. The State of Washington is the sponsor for the Sediment Retention Structure (SRS) and dredging portions of the project. Consolidated Diking Improvement District No. 3 and Drainage Improvement District No. 1 are sponsors for the Kelso levee improvement.

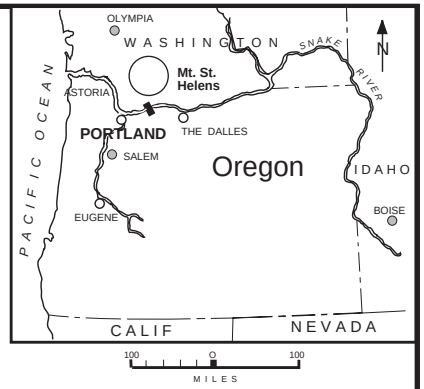
Land rights have been obtained by the State over the lands required for initial construction of the SRS. All persons residing within the SRS acquisition boundary have been relocated. The Diking and Drainage Districts have been furnished right-of-way requirements and are continuing their acquisition program. The State is continuing to acquire rights-of-way for additional dredge disposal areas.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $199,500,000 remains unchanged from the latest estimate submitted to Congress (FY 2002).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with the EPA in December, 1984.

OTHER INFORMATION: Funds to initiate preconstruction planning were allotted in FY 1985 and construction in FY 1986. Estimated fish and wildlife mitigation costs are $13,858,000.





Schedule

	Work completed as of:
Analysis of Cowlitz River sedimentation	Sept 2001
Engineering and risk assessment for levee systems	FY 2002
Fish studies at SRS and in Cowlitz River	FY 2003
Assessment of flood protection alternatives	FY 2003 and after

Flood Control

Mt. St. Helens Sediment Control

Washington

Scale as Shown

US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002

APPROPRIATION TITLE: Construction, General - Local Protection, Flood Control

PROJECT: Wood River, Grand Island, NE (Continuing)

LOCATION: This project is located in Hall County Nebraska, approximately midway between the city of Grand Island and Interstate 80.

DESCRIPTION: The proposed project consists of a 5 mile long diversion channel with levees on both sides. The channel will divert Wood River flood flows to the Platte River. The diversion structure will be located downstream from the Highway 281 bridge that crosses the Wood River. The diversion channel will begin at that point and run eastward to the Platte River. Current county and city bridges that cross the channels will be designed and constructed by the sponsor. One bridge for the Union Pacific Railroad (UPRR) will be constructed. In addition, a 2 mile long tie-off levee and small diversion channel will be built west of Highway 281 to prevent Wood River flood flows from spilling into the Warm Slough basin nearby and outflanking the diversion channel.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1996, Section 101K modified by WRDA of 1999, Section 335.

REMAINING BENEFIT-REMAINING COST RATIO: 1.6 to 1 at 7 3/8 percent

TOTAL BENEFIT-COST RATIO: 1.6 to 1 at 7 3/8 percent

INITIAL BENEFIT-COST RATIO: 2.3 to 1 at 7 3/4 percent (FY 1997)

BASIS OF BENEFIT-COST RATIO: Benefits are taken from the Post Authorization Change Report dated March 1998, at October 1997 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM	STATUS	PERCENT	COMPLETION
Estimated Federal Cost		$ 10,562,000	PCT OF EST	(1 Jan 2002)	COMPLETE	SCHEDULE
Estimated Non-Federal Cost		4,078,000	FED COST			
Cash Contributions		$ 732,000		Entire Project	31	September 2004
Other Costs	3,346,000					
Total Estimated Project Cost		$ 14,640,000				
Allocations to 30 September 2001		$ 3,227,000				
Conference Allowance for FY 2002		4,000,000				
Allocation for FY 2002		1,045,000	1/			
Allocations through FY 2002		4,272,000	40			
Allocation Requested for FY 2003		3,536,000	74			
Programmed Balance to Complete after FY 2003		2,754,000				
Unprogrammed Balance to Complete after FY 2003		0				

1/ Reflects $639,000 reduction assigned as savings and slippage, $1,808,000 reprogrammed from the project and $508,000 to be reprogrammed from the project.

PHYSICAL DATA:

Real Estate:	1250acres	Relocations:	
Channels: Length	7 miles	Bridges:	1 Railroad
Warm Slough diversion	420 cfs	Utilities:	
Wood River diversion	7,000cfs	Water lines	800 lf
Excavation	743,000 cy	Sewer lines	300 lf
Rip Rap	1,700tons	Gas lines	1,900 lf
Levees:		Comm Cables	7,000 lf
Length	12miles	Elect Power	5,500 lf
Embankment	465,000 cy	Fencing	600 lf
Average height	4 ft		

JUSTIFICATION: The Wood River basin originates about 80 miles west of Grand Island, Nebraska, and drains approximately 770 square miles above Grand Island. Flooding and erosion in the project area are widespread and long in duration. Since 1899, 41 flood events have been recorded. This is an average flood occurrence of about once every 2 years. The most recent flood was in the summer of 1993. The proposed project will provide 100-year flood protection. As of Oct 1993, $187.7 million of residential and $31.2 million of commercial property are subject to flood damage. The average annual damages without the project are $2.5 million. The average annual damages with the project are $0.6 million. The flood of record occurred in 1967 and caused an estimated $13.4 million in damages. Petitions containing 1,034 signatures sent to congressional representatives in 1995 indicate strong local support for this project. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Reduction:	
Urban Flood	$1,790,000
Agricultural Administration	135,000
Flood Insurance Cost Savings	184,000
Flood Proofing Cost Savings	68,000
Total Benefits	$ 2,177,000

FISCAL YEAR 2003: The requested amount of $3,536,000 will be applied as follows:

Item	Amount
Continue Construction of Diversion Channel, Levees and Diversion Structure	$ 3,396,000
Planning, Engineering and Design	6,000
Construction Management	134,000
Total	$ 3,536,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide all lands, easements, right-of-ways, and dredged material disposal areas.	$ 2,052,000	
Modify or relocate of utilities, buildings, roads, bridges (except railroad bridges), and other facilities, required for construction of the project.	1,294,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	732,000	$ 30,000
Total Non-Federal Costs	$ 4,078,000	$ 30,000

The non-Federal sponsors must also agree to make all required payments concurrently with project construction.

Communities must agree to adopt additional flood plain management activities beyond the requirement to participate in the National Flood Insurance Program to qualify for Federal participation in a structural flood damage reduction project. These activities, which are being discussed between the Administration and Congress, may include public information and education on flood hazards within the community, flood plain regulation to promote sound use and reduce future flood damages, control of storm water runoff, and preservation of open space.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement (PCA) with the Central Platte Natural Resources District to sponsor the Wood River flood control project was executed on 2 May 2000.

The current non-Federal cost estimate of $4,078,000, which includes a cash contribution of $732,000, is a decrease from the non-Federal cost estimate of $4,126,000 noted in the PCA, which included a cash contribution of $733,000.

The potential sources of non-Federal funding and their approximate share of project funds are as follow: Central Platte Natural Resources District (NRD), $3,247,400; City of Grand Island, Nebraska, $498,200; Hall County, $166,200; Merrick County, $166,200. The largest share of the non-Federal funding will come from the State of Nebraska through the NRD. The Central Platte NRD has already requested funding from the Nebraska Resources Development Fund. The project meets the eligibility requirements for this program and will be reviewed upon completion of the necessary design and engineering reports. Since the project meets current Federal water resources guidance, it is anticipated that the Development Fund will provide substantial funding for the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $10,562,000 is a decrease of $136,000 from the latest estimate ($10,698,000) presented to Congress (FY 2002). This change includes the following items:

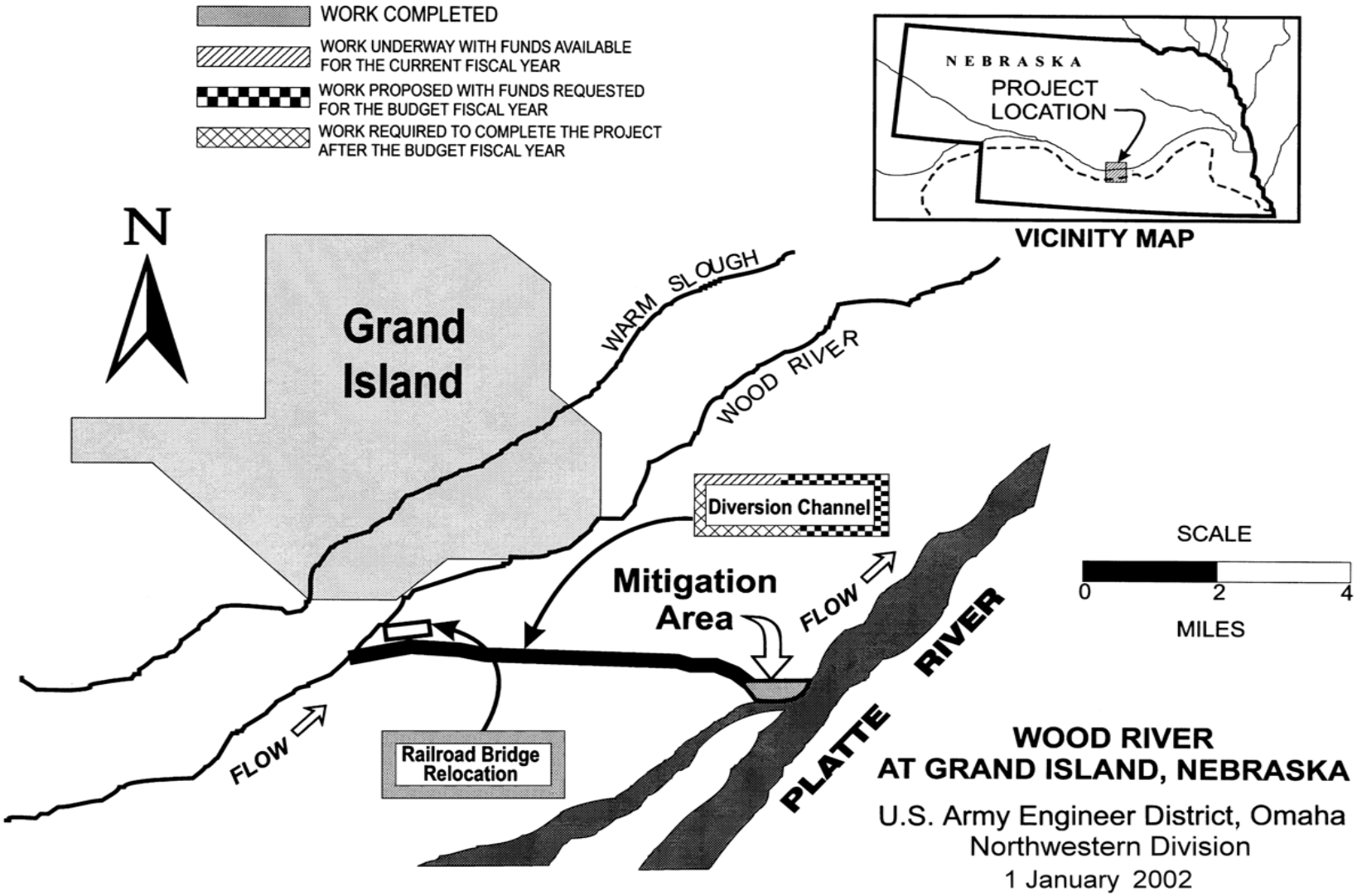
Item	Amount
Price Escalation on Construction Features and Changes in Project Inflation Rates	$ -133,600
Other Estimating Adjustments	-2,400
Total	$ -136,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Feasibility Report/Environmental Assessment was completed in March 1994. The "Findings of No Significant Impact" was signed by the District Commander in April 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1993. The mitigation portion of the project will consist of creating 9.2 acres of wetlands to replace the wetlands lost during construction of the diversion channel and the acquisition of approximately 30 acres of wet meadow for protection as a natural heritage and educational area.

Funds to initiate construction were appropriated in Fiscal Year 1997.

During the final design of the project in July 1997 it was found that the total project cost would exceed the Section 902 limit. A Post Authorization Change report was completed in June 1998 and reauthorization was requested. The project was reauthorized by WRDA 99 at a total cost of $17,039,000, Then in March 1999 the Nebraska Congressional delegation requested that the Corps immediately proceed with the processing and signing of the PCA for the project before the major non-federal funding source reallocated its funds to other projects. In April 1999 a meeting was held between the Corps, the local sponsors, and the Nebraska Natural Resources Commission to discuss the status of the project and the commitment by the sponsors and the federal government to proceed with the project. The conclusion of the meeting was that the Nebraska Natural Resources Commission would continue to provide funding for the project if the sponsor and the Corps could show that the project was proceeding. In a Sponsor's letter dated 4 May 1999, the sponsor indicated that they intend to proceed with the construction of bridges at the discretion of the local government and that bridges be removed from the project and treated as part of the without project condition. This was agreed to by the Corps 9 June 1999. The total estimated project cost of $14,640,000 reflects this agreement.



Division: Northwestern

District: Omaha

Wood River, Grand Island, Nebraska

4 February 2002

APPROPRIATION TITLE: Construction, General (Flood Control)

PROJECT: Buford Trenton Irrigation District (Land Acquisition), North Dakota (Continuing)

LOCATION: The Buford Trenton Irrigation District (BTID) is located in the flood plain along the left (north) bank of the Missouri River near its confluence with the Yellowstone River in Williams County North Dakota. The current boundaries of the BTID begin about 10 miles west of Williston, North Dakota at the upstream end of Lake Sakakawea, and extended upstream to just above the confluence of the Missouri and Yellowstone Rivers for a total of 18 miles.

DESCRIPTION: The project consists of the acquisition of permanent flowage and saturation easements in the area from the main irrigation canal to the north bank of the Missouri River, located at the BTID pumping station and continuing downstream to the land referred to as the East Bottom. The project also includes land contiguous to the boundaries of the BTID that has been affected by rising ground water and the risk of surface flooding. Any easement acquired shall include the right, power, and privilege of the Federal government to submerge, overflow, percolate, and saturate the surface and subsurface of the lands. The easement will not allow structures for human habitation on the land. Structures not designed for human habitation may remain. The Federal government shall convey to the BTID, drainage pumps constructed by the Corps of Engineers, located within the boundaries of the District, and provide a lump-sum payment of $60,000 for all future power requirements associated with the operation of these pumps.

AUTHORIZATION: Section 336 of the Water Resources Development Act (WRDA) of 1996 (Public Law (PL) 104-303).

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA: 1/			STATUS (1 JAN 2002)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		$ 34,000,000			
Estimated Non-Federal Cost		0	Entire Project	63	September 2008
Cash Contribution	$ 0				
Other Costs	$ 0				
Total Estimated Project Cost		$ 34,000,000			

1/ Based on detail estimate used in preparation of a Real Estate Design Memorandum for the Acquisition of Flowage and Saturation Easements for Affected Lands within and Surrounding the Buford-Trenton Irrigation District's submitted in April 1997.

SUMMARIZED FINANCIAL DATA (continued):		ACCUM PCT. OF EST. FED COST	PHYSICAL DATA
Allocations to 30 September 2001	$ 17,279,000		Land Acquisition (Easements): 11,750 acres total
Conference Allowance for FY 2002	5,000,000		(10,000 irrigable land &1,750 nonirrigable land)
Allocation for FY 2002	5,751,000 2/		
Allocations through FY 2002	23,030,000	68	
Allocation Requested for FY 2003	1,000,000	71	
Programmed Balance to Complete after FY 2003	9,970,000		
Unprogrammed Balance to Complete after FY 2003	0		

2/ Reflects $799,000 reduction assigned as savings and slippage and $1,550,000 reprogrammed to the project.

JUSTIFICATION: Acquisition of easements is authorized by Act of Congress through PLs 534-78 and 104-303. PL 534-78 authorizes the operation and maintenance of the Garrison Dam Project, and PL 104-303 is WRDA of 1996. The 1996 WRDA was signed on 12 October 1996, thereby authorizing the acquisition of flowage and saturation easements over affected lands within and surrounding the BTID. The Real Estate Design Memorandum (REDM) was conditionally approved on 21 May 1997. Additional information as to availability of replacement housing required by PL 91-646, and clarification of cemetery relocations was provided 12 September 1997 and acknowledgment as to its adequacy was received on 17 September 1997.

FISCAL YEAR 2003: The requested amount of $1,000,000 will be applied as follows:

Easement Acquisition and Associated Costs	$ 910,000
Project Management activities	90,000
Total	$ 1,000,000

NON-FEDERAL COST: There is no requirement for a non-Federal sponsor for this project.

STATUS OF LOCAL COOPERATION: N/A

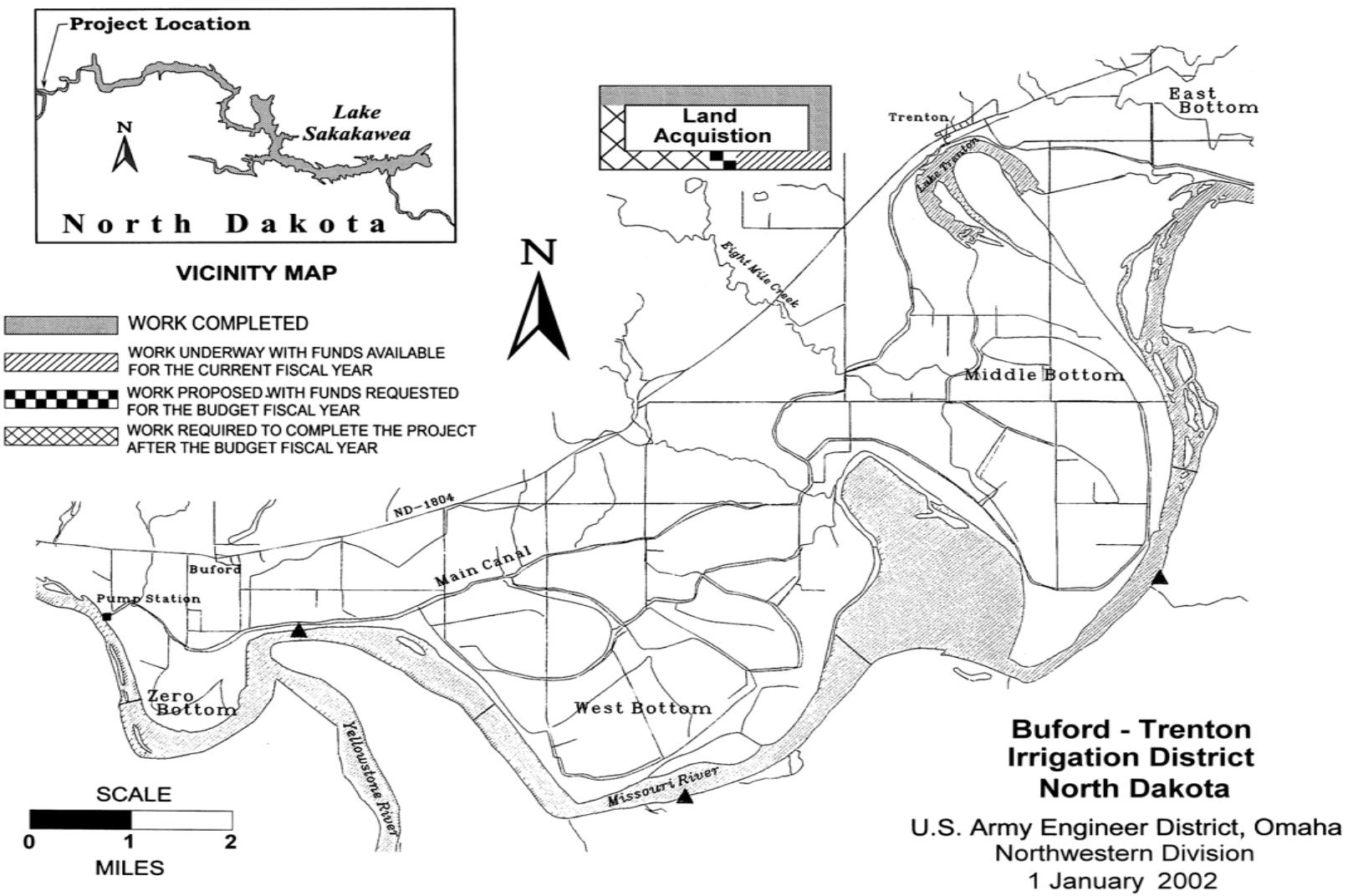
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $34,000,000 is unchanged from the latest estimate presented to Congress (FY 2002). The cost estimate reflects the limit of Federal appropriations as contained in the authorizing legislation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed acquisition of flowage and saturation easements is not a major Federal action that would significantly affect the quality of the human environment and, therefore, did not require the preparation of an environmental impact statement. An Environmental Assessment was prepared and completed in January 1994 which concluded that there were no significant impacts. The U.S. Fish and Wildlife Service concurred with the Finding of No Significant Impact.

OTHER INFORMATION: The United States Bureau of Reclamation (USBR) and Department of Agriculture (USDA) constructed the 16,800 acre BTID between 1940 and 1943. Today the BTID includes approximately 11,750 acres. The reduced size of the BTID is attributed to the construction of the Garrison Dam which was closed in 1953. East Bottom was purchased in fee by the Corps in 1958 as part of the Garrison Dam, Lake Sakakawea Project.

Approximately 10,000 acres are irrigable (primarily beet producing acres) and 1,750 acres are non-irrigable (alfalfa, grassland, grazing and marsh/waste acreage). There are approximately 70 affected landowners and 90 tracts. The BTID was divided by bends of the Missouri River into four bottoms. Zero Bottom is the smallest and is located at the upstream end of the BTID. Zero Bottom is followed downstream on the Missouri River by West, Middle and East Bottoms.

Funds to initiate construction were appropriated in Fiscal Year 1998.


Project Location
Lake Sakakawea
N
North Dakota
VICINITY MAP
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
Land Acquistion
N
Trenton
East Bottom
Lake Trenton
Eight Mile Creek
Middle Bottom
ND-1804
Buford
Main Canal
Pump Station
Zero Bottom
West Bottom
Yellowstone River
Missouri River
SCALE
0 1 2
MILES
Buford - Trenton Irrigation District North Dakota
U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2002

APPROPRIATION TITLE: Construction, General - Reservoirs (Flood Control)

PROJECT: Elk Creek Lake, Oregon (Continuing)

LOCATION: In Jackson County, on Elk Creek, a tributary of Rogue River, at river mile 1.7 about 26.5 miles north of Medford, Oregon.

DESCRIPTION: The Elk Creek Lake Project was authorized as one of three multiple-purpose dams in the Rogue River Basin. The three dams were designed to operate as a system to reduce flooding and to accomplish additional purposes of water supply, irrigation, fish and wildlife enhancement, hydropower, and recreation. Two of the three dams are complete and operating. Features of the partially completed Elk Creek Lake project include a 249-foot high, roller-compacted, concrete, gravity dam; a gate controlled concrete chute spillway; regulating outlet conduits; a diversion for power penstock; and a multiple use in-take tower attached to the upstream face of the dam. Based of the selected alternative described in final EIS Supplement Number 2, filed 1 May 1991; the project would be redesigned for interim operation with no conservation pool and with fish passage.

AUTHORIZATION: 1962 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: The remaining benefit-remaining cost ratio is 0.61 to 1 at the authorized rate of 3 1/4%.

TOTAL BENEFIT - COST RATIO: The total benefit-cost ratio is 0.36 to 1 at 3 1/4%.

INITIAL BENEFIT - COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1971) was 1.01 to 1 at a 3 1/4% rate and was based on project's fair share of system benefits.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation reported in June 1983 at 1983 price levels.

SUMMARIZED FINANCIAL DATA:			STATUS	PERCENT	COMPLETION
Estimated Federal Cost		$179,400,000 1/	(1 Jan 2002)	COMPLETE	SCHEDULE
Programmed Construction	$120,476,000				
Unprogrammed Construction	58,924,000		Entire Project	62	Indefinite
Estimated Non-Federal Cost		0			PHYSICAL DATA
Programmed Construction	0				Dam: Type - Roller compacted concrete.
Cash Contributions	$ 0				Height - 249 feet; length - 2,580
Other Costs	0				Concrete Volume - 1,100,000 cu. yds.

1/ Reflects the cost of the selected alternative described in EIS Supplement Number 2 in 1991. Excludes deferred costs for future potential modification to operate with a conservation pool if the project is completed in the future. This estimate must be significantly updated at that time if the project is completed in the future.

SUMMARIZED FINANCIAL DATA (continued)

Estimated Non-Federal Cost		0	
Unprogrammed Construction	0		
Cash Contributions	0		ACCUM.
Other Costs	0		PCT. OF EST.
			FED COST
Total Estimated Programmed Cost		120,476,000	
Total Estimated Unprogrammed Cost		58,924,000	
Total Estimated Project Cost		179,400,000	
Allocations to 30 September 2001		110,340,000	
Conference Allowance for FY 2002		2, 000,000	
Allocation for FY 2002		1,680,000 2/	
Allocations through FY 2002		112,020,000	62%
Allocation Requested for FY 2003		1,000,000	63%
Programmed Balance to Complete after FY 2003		8,456,000	
Unprogrammed Balance to Complete after FY 2003		59,056,000	

2/ Reflects $320,000 reduction assigned as savings and slippage.

Spillway: Type - Concrete gravity.
Gate Ogee Section: Design discharge- 68,400 cfs,
Gates - 3 (33 feet x 34 feet) tainter.
Lands and Damages: Acres - 3,570
Land Use: Irrigated - 130 acres;
Pasture - 182 acres; Wooded - 3,151 acres (of which 841 acres are Government owned); Lesser Interests- 67 acres;
Building Sites - 40 acres
Relocations: County Road - 7.9 miles
Power and Telephone lines - 15 miles, Cemetery Reservoir
Capacity Total storage at elev 1,726 - 101,000 acre feet
Usable Storage - 95,000 acre feet; Flood Control Storage (elev 1726- 1665) - 60,000 acre feet Conservation Storage (elev 1665 (1581) - 35,000 acre feet; Inactive Storage (elev

JUSTIFICATION: Elk Creek Lake could be operated without conservation storage on an interim basis together with Lost Creek and Applegate Lakes as the three-dam Rogue River Basin system to provide flood control. The project would control run-off from about 132-square miles upstream from Elk Creek site. The flood problems occur principally in discontinuous areas in the 50-mile reach of the Rogue River from the junction of Elk Creek downstream to about ten miles past Grants Pass and in scattered areas in the lower 100-mile reach of the Rogue River. The major flood plain comprises some 7,400 acres of hay, alfalfa, pasture orchards (peaches, pears), and hops and affects a population of 14,560. Damages from past floods include agricultural crop losses and land damage due to inundation and erosion; and destruction of industrial, residential, commercial, and recreation developments. A total of 95,000 acre-feet of usable storage would be available at Elk Creek for flood control. The maximum flood that could be completely controlled at the Elk Creek site would have a peak flow of about 19,200 cubic feet per second and a frequency of occurrence of once in about 40 years. During the flood of 1964, the most severe flood since 1861, damages to the area downstream from Elk Creek and Lost Creek Lakes amounted to $13,161,000 of which about $2,350,000 would have been prevented by Elk Creek Lake. The peak stage of a flood such as that of 1964 would be reduced about 5.6 feet at Grants Pass by Lost Creek, and 7.4 feet by Lost Creek and Elk Creek Lakes combined. When there is a need for additional conservation storage in the region, engineering and environmental studies could be initiated to determine the feasibility of modifying operation of the project to include conservation storage. Annual benefits creditable to Elk Creek Lake are estimated to be $2,026,000 based on 1 October 1983 prices, considered as last added increment to the three-dam system and include the following:

Annual Benefits	
Flood Control	$ 1,883,000
Employment	143,000
Total	$ 2,026,000

FISCAL YEAR 2003: The requested amount of $1,000,000 will be applied as follows:

Continue real estate activities	$ 27,000
Continue caretaker activities	390,000
Continue Planning, Engineering, and Design	583,000
Total	$1,000,000

NON-FEDERAL COST: A non-Federal sponsor for this project has not been identified at this time. In the event a sponsor agrees to enter into a Project Cooperation Agreement for municipal and industrial water supply, the sponsor will pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, and replacement of municipal and industrial water supply facilities; for recreation, the sponsor will pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities; for agricultural water supply, the sponsor will pay all costs allocated to agricultural water supply and bear all costs of operation, maintenance, and replacement of agricultural water supply facilities.

STATUS OF LOCAL COOPERATION: Responsibility for repayment of irrigation costs rests with the Department of Interior pursuant to Federal Reclamation law. Responsible officials of four irrigation districts (Sams Valley, Eagle Point, Applegate Valley, and Rogue River Valley) have furnished preliminary assurances that it is the intention of each individual district to enter into a contract with the Secretary of the Interior to provide reimbursement of irrigation cost within each district's ability to repay such costs pursuant to reclamation law. Pursuant to Public Law 91-439, October 7, 1970, the project will not be operated for irrigation purposes until such time as the Secretary of the Interior makes the necessary arrangements with non-Federal interests to recover the costs, in accordance with the Federal Reclamation Law, which are allocated to the irrigation purpose. Assurances for future purchase of municipal and industrial water supply have been obtained from six communities in the valley: Medford, Grants Pass, Shady Cove, Sams Valley, Eagle Point, and Gold Hill. Phoenix, Oregon, a suburb of Medford, is currently purchasing municipal and industrial water supply storage at Lost Creek Lake.

Recreation facilities will not be scheduled until development of cost sharing agreements with local interests for construction and non-Federal operation and maintenance, consistent with projects for which recreation facilities are being constructed under provisions of the Federal Water Project Recreation Act of 1965 (PL 89-72), as amended.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $179,400,000 remains unchanged from the latest estimate submitted to Congress (FY 02).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Statement was filed with CEQ on September 17, 1971. Supplement No.1, addressing water quality effects, was filed with EPA on December 24, 1980, and a Record of Decision was filed with EPA in February 1982. An environmental assessment addressing design changes (such as roller compacted concrete instead of embankment dam) was completed on October 11, 1983. Supplemental Information Reports dated September 23, 1985 and January 14, 1986 were provided to the public; these reports described the findings of the 1983 environmental assessment and other new information which had become available since the 1980 EIS Supplement. Another EIS supplement has been prepared as a result of litigation; this Supplement was completed and filed with the EPA on May 1, 1991. A Record of Decision, selecting the no conservation pool as the interim operating alternative, was signed on January 24, 1992.

OTHER INFORMATION: Background: Funds to initiate preconstruction planning were appropriated in FY 1965, and for construction in FY 1971. Construction was deferred in FY 1977 due to a lack of state support. Following significant review, evaluation, and a public hearing, the Water Policy Review Board reversed its position and in April 1981 voted to support Elk Creek. Funds were appropriated in FY 1982 and FY 1983 to update and continue project design, plans, and specifications. Funds were appropriated in FY 1985 to resume construction. After initiation of construction, an injunction was placed against completion of the project and additional analysis under National Environmental Policy Act (NEPA) was required in order to remove the injunction. Construction of the project was terminated with the project at 83', one- third its design height. After completion of the final EISS #2, the Department of Justice filed a motion with the Court to remove the injunction. The Ninth Circuit Court of Appeals issued a ruling on April 21, 1995. In a decision, the Court also reversed the District Court decision that EISS #2 met the requirements of the earlier Ninth Circuit opinion and awarded attorneys fees to the plaintiffs. The case was remanded with instructions to prepare a third supplement adequately addressing all issues raised under the NEPA process.

Long Term Management Plan: Due to the Ninth Circuit Court of Appeals decision and the current Federal budgetary climate, the Corps does not plan to perform the environmental studies under the National Environmental Policy Act (NEPA) necessary to remove the Federal court injunction against completion of the project. Therefore, an evaluation of the requirements for long term management of the project in its uncompleted state will be required.

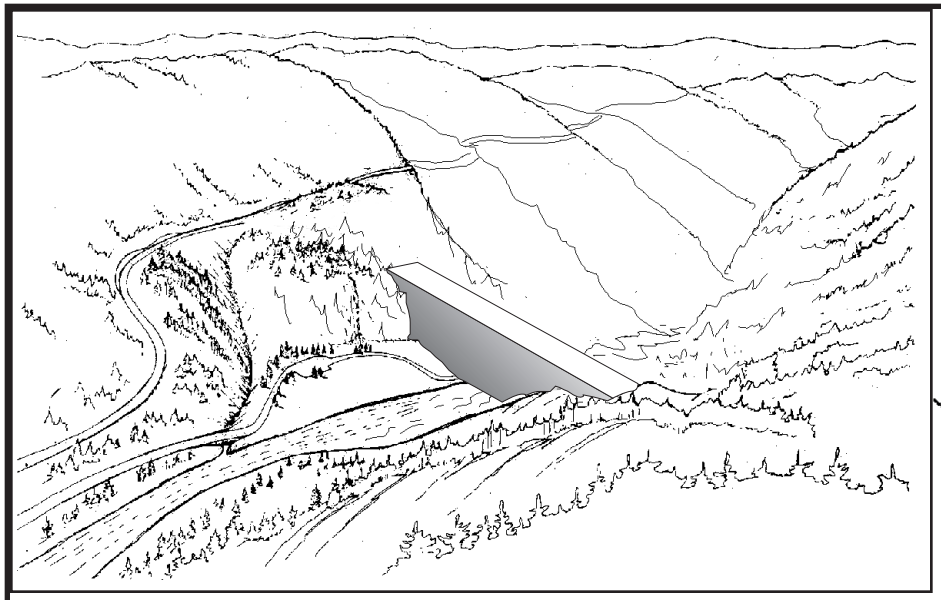
The Division Engineer notified the Congressional Appropriations Committees on 6 November 1995 of the Corps' intention to study options for long term management of the project in its uncompleted state. We plan to evaluate and implement measures in a two phase process. The first phase would provide long term fish passage measures by removing a section of the spillway and left abutment. The second phase will evaluate and implement measures required to resolve land management, potential equipment and gravel disposition, cultural resource requirements and other issues.

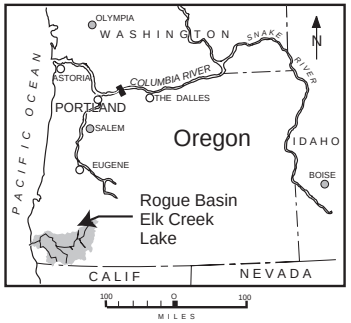
Although the Corps has no plans to perform the NEPA studies required to remove the injunction at this time, removal of a section of the spillway and left abutment will not prevent future completion of the project. Removing a section of the dam will provide passive fish passage in accordance with the language in the FY 1997 Energy and Water Development Appropriations Act. In addition, it is the most cost-effective method to provide fish passage over the long term with the project in an uncompleted state even when including the cost to replace the removed section of the dam if it is completed in the future. Until construction of the fish passage modification is complete, fish passage around the project will continue to be provided by the Department of Fish and Wildlife using Corps funds until a long term solution is implemented.

Funds were not available to construct the fish passage corridor in 2000, so consultations began with the National Marine Fisheries Service (NMFS) concerning alternatives for long-term fish passage at Elk Creek under the Endangered Species Act. Four potential upstream fish passage alternatives were evaluated in the Corps biological assessment. Based on this analysis, it was determined that passage through the existing diversion tunnel and continued operation of the existing trap and haul facility would result in jeopardy to the continued existence of coho salmon in Elk Creek over a ten to fifty year period. The assessment found that construction of a new trap and haul facility designed to function effectively with the uncompleted project or removal of a section of the dam to provide a fish passage corridor would not impact the continued existence of the species.

NMFS issued a biological opinion on January 2001. The opinion concurred with the Corps' assessment that passage through the existing diversion tunnel and continued operation of the existing trap and haul facility would result in jeopardy. They also concur with our assessment that the fish passage corridor would not result in jeopardy, and would be the best alternative from a biological perspective. Their opinion stated that a new trap and haul facility would result in jeopardy to the continued existence of the species. The opinion stated that there is a chance the impacts of a new trap and haul facility could be reduced to an acceptable level. It stated, however, that there are significant risks associated with the design of a new facility that resulted in their jeopardy finding. Since a new trap and haul facility is more expensive than the fish passage corridor, we have not performed detailed design to determine if these risks could be reduced to an acceptable level. The opinion recognized the need to operate the existing trap and haul facility in the interim until an acceptable, long-term solution is implemented.

Based upon concerns raised by local residents through elected officials, the ASA (CW) requested an agency review of the Corp's plan to construct the fish passage corridor. In order to allow for this agency review (to be complete in the fall of 2002), plans to proceed with the fish passage corridor (notch) have been deferred.





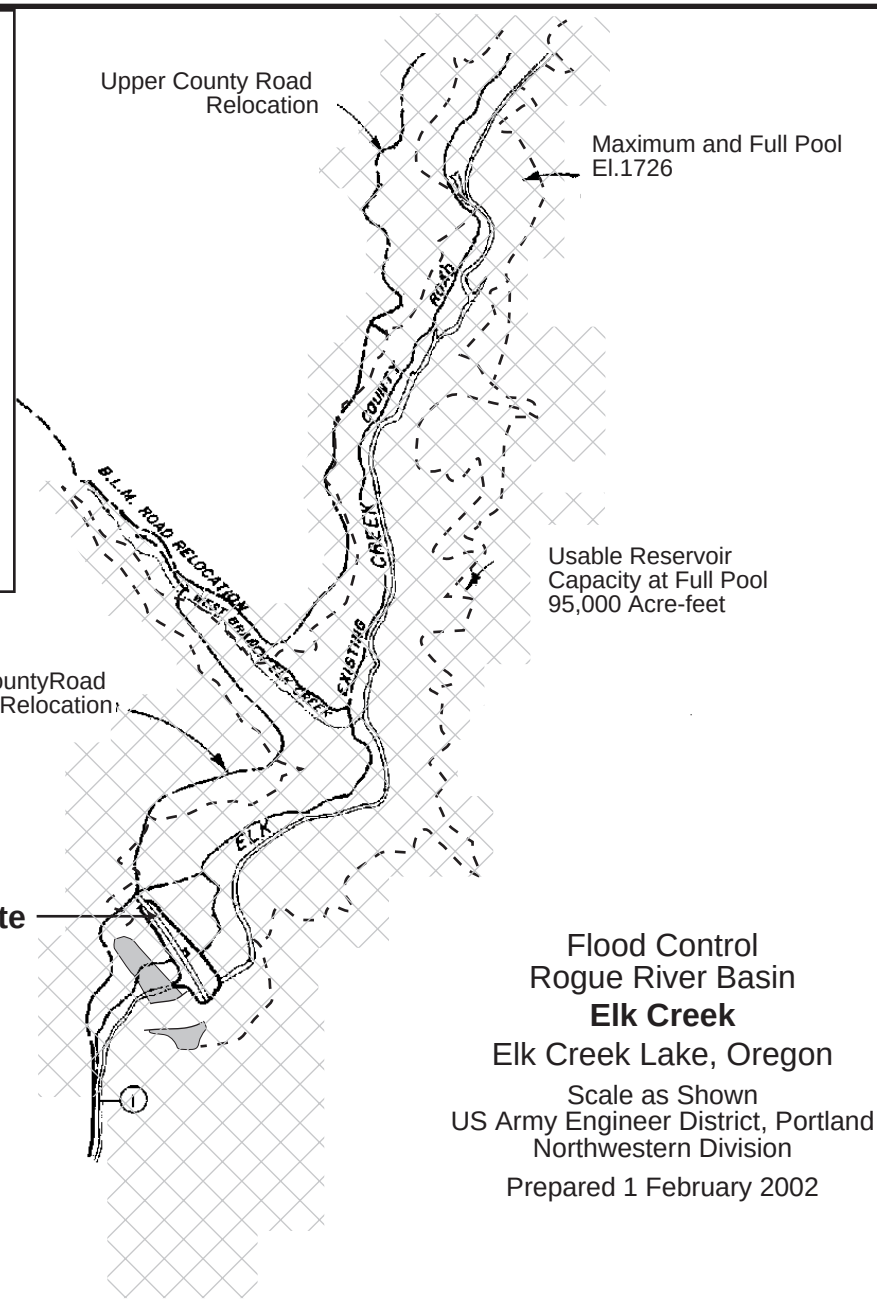
Upper County Road Relocation

Maximum and Full Pool El.1726

Usable Reservoir Capacity at Full Pool 95,000 Acre-feet

Middle CountyRoad Relocation

Elk Creek Dam site



Legend

Work Completed as of September 2001

Long term management and maintenance with funds requested for FY 2002, FY2003, and after

2000 0 2000 4000

Flood Control
Rogue River Basin
Elk Creek
Elk Creek Lake, Oregon

Scale as Shown
US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance and Fish Passage Facilities

PROJECT: Mud Mountain Dam, Washington (Continuing)

LOCATION: Mud Mountain Dam is located at river mile 29.6 on the White River, 6 miles upstream and southeast of Enumclaw, and 38 miles southeast of Tacoma in western Washington.

DESCRIPTION: Dam safety modifications completed to date include constructing a concrete cut-off wall in the dam's core along the centerline of the dam, raising the dam crest elevation, raising the spillway chute wall to contain the spillway discharge during the Spillway Design Flood event, reconstructing the access roads, constructing a new reservoir outlet control tower, and modifying the two existing flood control discharge tunnels. The new outlet tower is accessible at all pool levels, serves both existing tunnels, remains open during and after high water and debris flows, and will withstand the Maximum Credible Earthquake. Remaining work (based on a Jun 99 approved supplemental design memorandum #1(SDM)) consists of modifications to the outlet works and right-bank canyon slopes which are required to assure dam safety standards. A second SDM is being prepared for further modifications.

AUTHORIZATION: Flood Control Act of 1936 authorized the Mud Mountain Dam and reservoir on the White River as the main unit of the Puyallup River flood control project.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable to dam safety assurance projects.

TOTAL BENEFIT-COST RATIO: THE INITIAL BENEFIT - COST RATIO: Not applicable to dam safety assurance projects.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA			Accum. Pct. of Est.	STATUS (1 Jan 2002)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		$ 95,220,000	Fed Cost	Entire Project	84	Sept 2007
Estimated Non-Federal Cost	0					
Total Estimated Project Cost		$ 95,220,000				
Allocations to 30 September 2001		$ 79,457,000				
Conference Allowance for FY 2002		3,800,000				
Allocation for FY 2002		3,193,000	1/			
Allocations through FY 2002		82,650,000	87 %			
Allocation Requested for FY 2003		1,200,000	88 %			
Programmed Balance to Complete after FY 2003		11,370,000				
Unprogrammed Balance to Complete after FY 2003		0				

1/ Reflects reduction of $607,000 for Savings and Slippage.

PHYSICAL DATA:

Dam: Type - Rockfill with earth core and concrete cutoff wall
Height - 425 feet above bedrock
Crest - 700 feet long
Width - 1,600 feet at base, 26 feet at crest

Spillway: Type - Uncontrolled
Previous Design Capacity - 139,000 cfs
New Constructed Capacity - 220,000 cfs

JUSTIFICATION: Mud Mountain Dam became operational in 1948, and presently provides flood damage protection for about 850 acres of land on the White River and approximately 6,200 acres on the Puyallup River, with a population of more than 80,000 people. The area is used for agriculture, residential, industrial, commercial, and transportation developments related to the expanding Port of Tacoma area. Major transportation facilities include the Burlington Northern and the Tacoma Beltline Railroads, Interstate Highway 5; and U.S. Highways 99 and 410. The immediate area has a population of more than 200,000 people. Migratory fish are live trapped at the Buckley Fish Trap and trucked and released upstream of the dam. Two of the species, Bull Trout and Puget Sound Chinook, have been listed in accordance with the Endangered Species Act.

The original spillway was inadequate for the Spillway Design Flood (SDF) based on current criteria. With an SDF, the dam would have been overtopped and would probably have failed. The resulting flood would have inundated the White and Puyallup River Valleys and could have caused flow into the adjacent Green River Valley below Auburn. Widespread flooding would have resulted in catastrophic damages with a high potential for loss of human life. Potential damages during the SDF conditions without dam failure have been estimated to be about $3.4 billion at October 2002 prices and conditions. Damages associated with a dam failure during the SDF conditions have been estimated to be about $5.2 billion at October 2002 prices and conditions. Should the dam fail, costs to repair the dam structure are estimated to be about $200 million, and yearly flood losses would occur until the dam is replaced. The modified dam was tested by record floods in Nov 1995 and Feb 1996, reaching a record reservoir level of elevation 1198.

There would have been a high probability for loss of reservoir control by failure of the old reservoir outlet towers during the Maximum Credible Earthquake or plugging of the towers with debris during floods. Loss of control would have caused a rapid and uncontrolled rise in pool level resulting in unregulated flow over the spillway and loss of flood protection. Under these conditions, the integrity of the right reservoir rim could have been jeopardized by seepage resulting from the prolonged high pool.

The modification of the two discharge tunnels was completed as part of the new outlet tower construction contract. Modification of the 23-foot tunnel substantially altered the hydraulic regimen from the original design. This was done in order to enhance the flood protection capability of the outlet works while minimizing environmental impacts to the river. Yearly inspections since completion of the construction contract (1995) identified greater than anticipated erosion in the concrete invert of the 23-foot tunnel and in the entrance chamber portion of the outlet tower. The damage that occurred due to the on-going erosion warranted immediate remedial action and has been completed.

JUSTIFICATION (continued)

Construction of the new intake tower required the installation of a pedestrian bridge and stairway along the right bank slope. These features provide the only personnel access to the intake tower during high reservoir pools, and support the intake tower's lifeline utilities. Recent inspections and an engineering review of the slope-bridge-stairway system has revealed that this system may not remain intact after a major seismic event. Should this access system fail due to soil instability, operational control of the service and emergency gates would be lost. This modification work was initiated in FY 2001.

FY 2002 funds are being used to complete the right bank slope stability and bridge upgrade, to address gate hydraulic system problems and other dam safety issues, and to initiate studies that will lead to the renovation or replacement of the existing fish trap and facilities.

FISCAL YEAR 2003: The requested amount will be applied as follows:

Continue fish trap and passage studies	$ 1,000,000
Planning, Engineering, and Design	200,000
Total	$ 1,200,000

NON-FEDERAL COSTS: None required

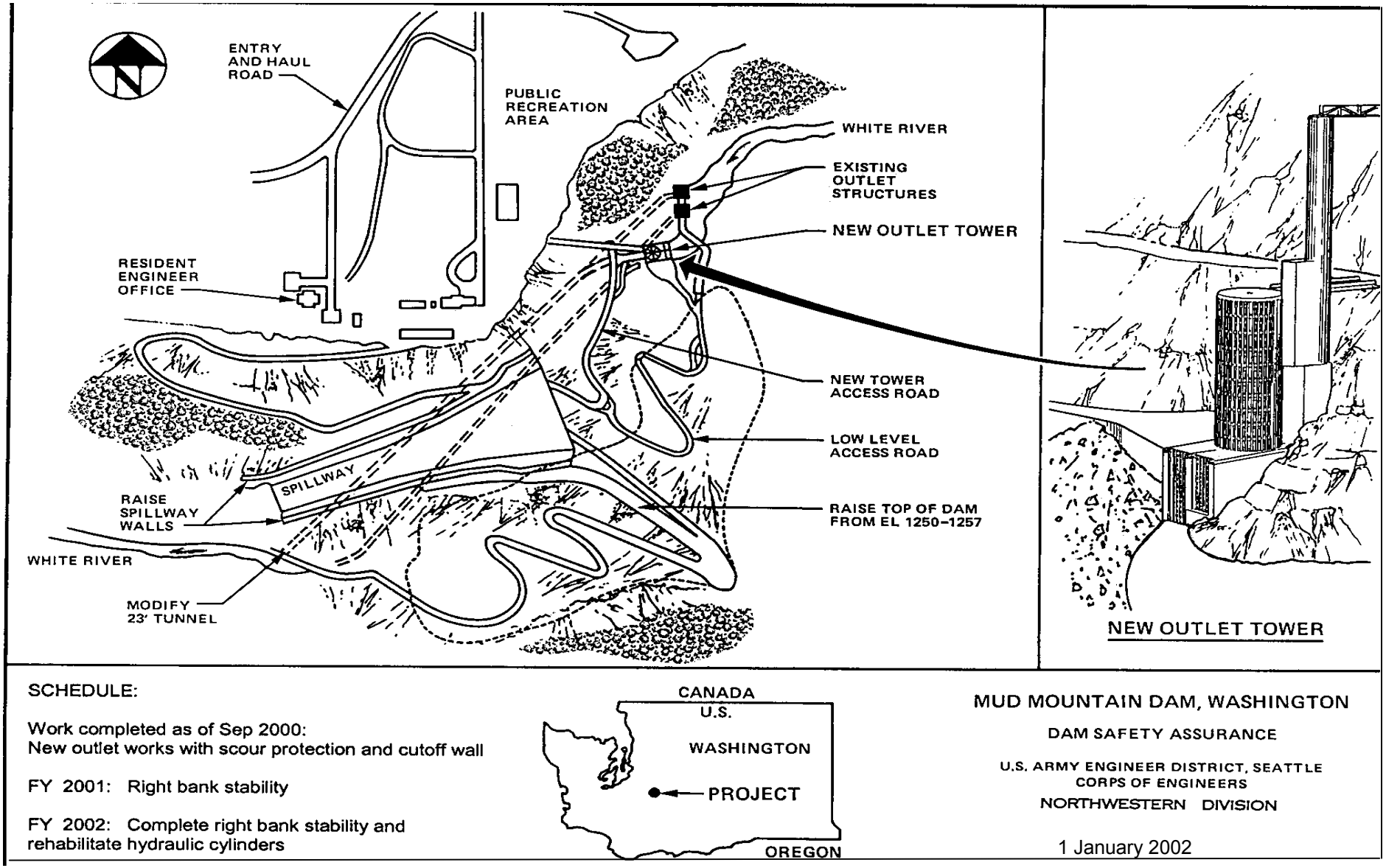
.

STATUS OF LOCAL COOPERATION: Mud Mountain Dam is an operational Federal project with no local sponsorship. Local cooperation is not required.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $95,220,000 is an increase of $1,500,000 from the latest estimate ($93,270,000) presented to Congress (FY 2002). This change is due to needed modifications to the down stream fish facilities to assure proper operation of the facilities and to meet ESA requirements.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was completed in June 1986 with an additional Environmental Assessment and Finding Of No Significant Impact completed in June 1999.

OTHER INFORMATION: The original project became operational in 1948 and has prevented more than $300 million in flood damages. The Dam Safety Assurance project began in 1986 and the new outlet tower first became operational in 1995. Congress added $500,000 to the project in FY 2002 for "the design of fish passage facilities".



Division: Northwestern

District: Seattle

Mud Mountain Dam, Washington
(Dam Safety Assurance)

4 February 2002

APPROPRIATION APPROPRIATION TITLE: Construction, General (Multiple Purpose Power Projects)

PROJECT: Columbia River Treaty Fishing Access Sites, Oregon and Washington (Continuing)

LOCATION: Thirty-one sites located along the Columbia River on Bonneville Pool, John Day Pool, and The Dalles Pool.

DESCRIPTION: The project will acquire and develop private lands on Bonneville Pool and develop Federal lands on Bonneville, The Dalles and John Day pools. The intent is to provide "equitable satisfaction" of the United States government's commitment to replace usual and accustomed fishing sites inundated by construction of the Bonneville Dam. In 1855, the Tribes reserved the right to access and fish at usual and accustomed sites through treaties. These rights have been upheld by the United States Supreme Court in 1905 and again in 1919. The improvements will include access roads, camping facilities, boat ramps and docks, sanitation and support facilities. Upon improvement, the land and improvements will be transferred to the U.S. Department of Interior for operation and administration on behalf of the Tribes.

AUTHORIZATION: Public Law 100-581, Title IV and Public Law 104-109.

REMAINING BENEFIT - REMAINING COST RATIO: N/A 1/

TOTAL BENEFIT-COST RATIO: N/A 1/

THE INITIAL BENEFIT - COST RATIO: N/A 1/

BASIS OF BENEFIT-COST RATIO: N/A 1

SUMMARIZED FINANCIAL DATA		ACCUM. % OF EST FED COST	STATUS (1 Jan 02)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement	$ 86,950,000				
Future Non-Federal Reimbursement	0		Entire Project	63 %	Sep 2007
Estimated Federal Cost (Ultimate)	0		PHYSICAL DATA		
Estimated Non-Federal Cost	0		Improvements: Access roads, utilities, and		
Total Estimated Project Cost		$ 86,950,000			camping facilities.
Allocations to 30 September 2001		$ 40,276,000 2/			
Conference Allowance for FY 2002		5,000,000			
Allocation for FY 2002		4,201,000 3/			
Allocations through FY 2002		44,477,000	51 %		
Allocation Requested for FY 2003		5,800,000	58 %		
Programmed Balance to Complete after FY 2003		36,673,000			
Unprogrammed Balance to Complete after FY 2003		0			

1/ Economic justification is not required. This project is specifically authorized in PL 100-581 to mitigate Bonneville Project impact on the treaty fishing access on the Columbia River.
2/ Includes the $7,029,981 for transfer to Department of Interior for operation and maintenance of the completed sites.
3/ Reflects $799,000 reduction assigned as savings and slippage.

JUSTIFICATION: In 1855, Indian Tribes of the Pacific Northwest entered into treaties with the United States. They ceded title to lands in the Columbia Basin and reserved the non-reservation treaty right to access the Columbia River and to take fish at "usual and accustomed" fishing places. In the 1930's, the United States constructed Bonneville Dam which inundated 37 of the treaty protected "usual and accustomed" sites. In accordance with a 1939 agreement between the War Department and the Indian Tribes, the United States was to provide 400 acres of land at six sites from Bonneville Dam to The Dalles, Oregon. Under subsequent authority the United States provided five sites totaling approximately 40 acres. In hearings held by the United States Senate Select Committee on Indian Affairs, Congress acknowledged the inequity and later enacted Public Law 100-581, Title IV - Columbia River Treaty Fishing Access Sites. The project provides "equitable satisfaction" of the United States government's commitment to replace those lands inundated by construction of the Bonneville project in accordance with the authorizing legislation.

NON-FEDERAL COSTS: Fully Federal funded.

STATUS OF LOCAL COOPERATION: N/A

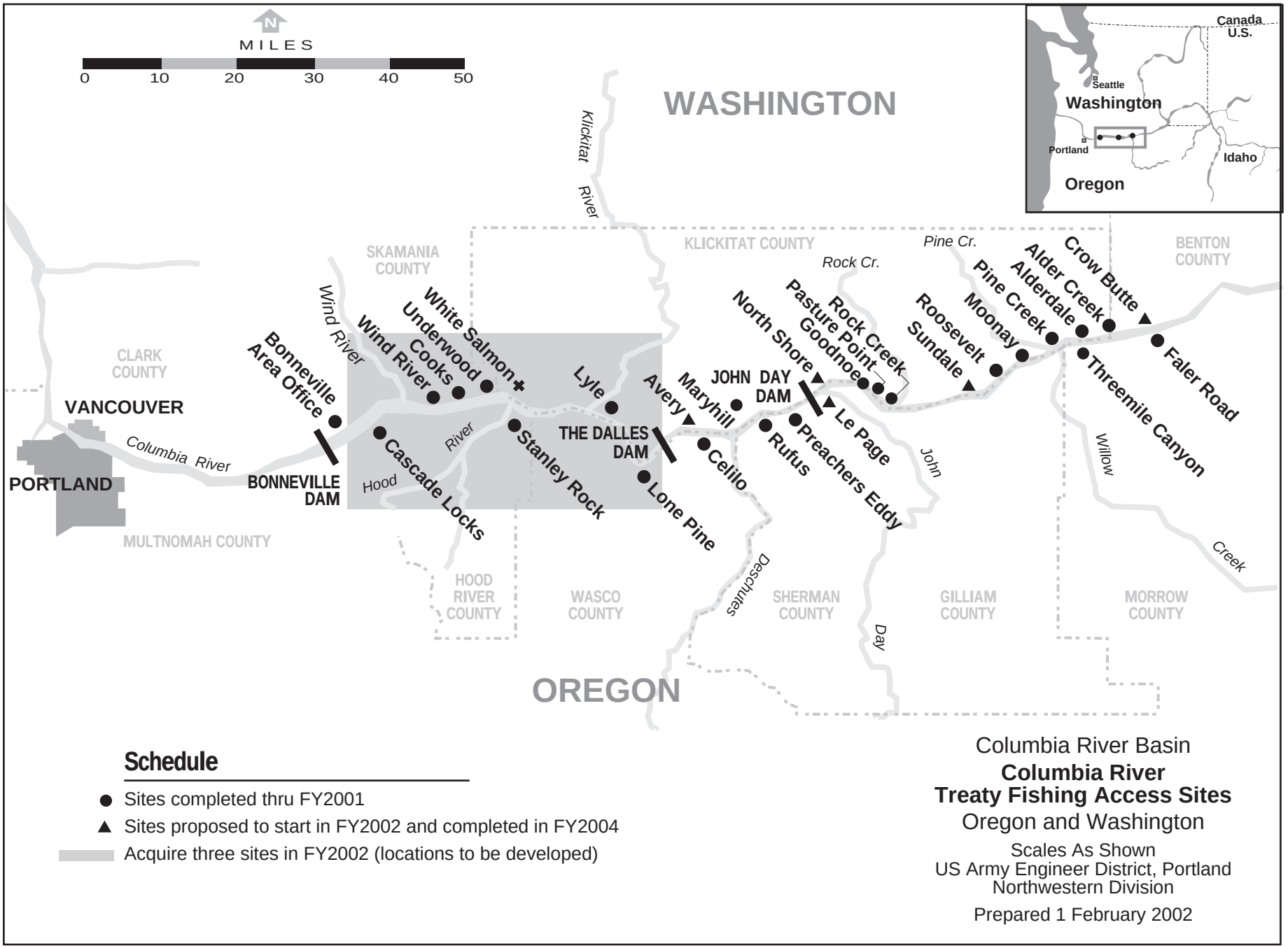
FISCAL YEAR 2003: The requested amount of $5,800,000 will be applied as follows:

Continue Lands and Damages	$ 1,000,000
Continue Construction	4,000,000
Continue Cultural Resource Preservation	100,000
Continue Planning, Engineering, and Design	200,000
Continue Construction Management	500,000
Total	$ 5,800,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $86,950,000 is an increase of $1,850,000 from the latest estimate ($81,200,000) presented to Congress (FY 2002). This change is due to price escalation of construction features.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Assessment indicates the potential environmental impacts from the development are minor. The Environmental Assessment was completed and a Finding of No Significant Impact was signed in April 1995.

OTHER INFORMATION: The four involved Indian tribes include the Nez Perce Tribe of Idaho, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes of the Yakima Indian Nation. The Evaluation Report and the Post Authorization Change Report indicated that the recommended project is technically sound, cost effective, environmentally acceptable, and complies with applicable Corps of Engineers' procedures and regulations. However, the Post Authorization Report notified Congress of required changes to the boundaries or locations of 19 sites to improve constructability. Specific legislative language is included in Public Law 104-303. Also, the views of interested parties, including federal, state, and local agencies, have been considered. On 23 June 1995, a Memorandum of Understanding was signed between ASA(CW) and Bureau of Indian Affairs (BIA) for the Corps to fund, in advance, the capitalized costs for long-term O&M for all sites. Public Law 104-109 authorizes an increase of $2,000,000 in the amount to be used for land acquisition.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Canada
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Klickitat River
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KLICKITAT COUNTY
BENTON COUNTY
CLARK COUNTY
MULTNOMAH COUNTY
HOOD RIVER COUNTY
WASCO COUNTY
SHERMAN COUNTY
GILLIAM COUNTY
MORROW COUNTY
VANCOUVER
PORTLAND
Columbia River
Wind River
Hood River
Deschutes River
John Day River
Willow Creek
Rock Cr.
Pine Cr.
Bonneville Area Office
BONNEVILLE DAM
Cascade Locks
White Salmon
Underwood
Cooks
Wind River
Stanley Rock
Lyle
THE DALLES DAM
Lone Pine
Avery
Celilo
JOHN DAY DAM
Maryhill
Rufus
Preachers Eddy
Le Page
North Shore
Pasture Point
Goodnoe
Rock Creek
Roosevelt
Sundale
Moonay
Pine Creek
Alderdale
Alder Creek
Crow Butte
Threemile Canyon
Faler Road
Schedule
Sites completed thru FY2001
Sites proposed to start in FY2002 and completed in FY2004
Acquire three sites in FY2002 (locations to be developed)
Columbia River Basin
Columbia River
Treaty Fishing Access Sites
Oregon and Washington
Scales As Shown
US Army Engineer District, Portland
Northwestern Division
Prepared 1 February 2002

APPROPRIATION TITLE: Construction General (Multiple Purpose Power Projects)

PROJECT: Flood Mitigation, Pierre, South Dakota (Continuing)

LOCATION: The project area consists of the Missouri River just downstream of Oahe Dam near Pierre and Fort Pierre, South Dakota

PROJECT DESCRIPTION: The legislation authorizes that the Secretary may acquire from willing sellers such land and property in the vicinity of Pierre, South Dakota, or flood proof or relocate such property within the project area, as the Secretary determines is adversely affected by the full wintertime Oahe Powerplant releases.

AUTHORIZATION: P.L. 105-277 112 Stat 2681 as amended by P.L. 106-224

REMAINING BENEFIT- REMAINING COST RATIO: 2.13 to 1 at 6 7/8 percent

TOTAL BENEFIT COST RATIO: 2.13 to 1 at 6 7/8 percent

INITIAL BENEFIT COST RATIO: 2.13 to 1 at 6 7/8 percent

BASIS FOR B/C RATIO: Benefits are from the Flood Mitigation Study and Project Implementation Plan for the Missouri River near Pierre, South Dakota dated 12 August 1999 at July 1999 price levels.

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST	STATUS: (1 JAN 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement	$ 35,000,000				
Future Non-Federal Reimbursement	13,500,000				
Estimated Federal Cost (Ultimate)	21,500,000		Entire Project	45	September 2006
Estimated Non-Federal Cost	13,500,000				
Reimbursements $13,500,000 Power					
Total Estimated Project Cost	$ 35,000,000				
Allocations to 30 September 2001	$ 14,352,000				
Conference Allowance for FY 2002	6,000,000				
Allocation for FY 2002	7,632,000	1/			
Allocations through FY 2002	21,984,000	63			
Allocation Requested for FY 2003	1,426,000	69			
Programmed Balance to Complete after FY 2003	11,590,000				
Unprogrammed Balance to Complete after FY 2003	0				

PHYSICAL DATA

Relocations: Flood Proof:
Roads - 10,338 ft
Storm Drains 1,833 ft
Sanitary Sewers - 7,029
Culvert Outlets – 18
Pumping System – 3
Water Lines - 10,698 ft
Electrical Lines - 12,727 ft
Wells - 14
Buy Out or Flood Proof Structures - 117

1/ Reflects $959,000 reduction assigned as savings and slippage, $1,863,000 reprogrammed to the project, and $728,000 to be reprogrammed to the project.

JUSTIFICATION: Since Oahe Dam was initially put into operation in 1958, flooding in the Pierre and Fort Pierre area has been confined to low-lying lands adjacent to the river. This shallow flooding in the low-lying areas has been caused primarily by water backing up in the storm sewer system of Pierre and out into the streets, businesses and homes, most frequently in the southeast Pierre subdivisions. During the winter season, additional problems are caused by the ice cover in the Missouri River downstream from Oahe Dam which results in significantly higher stages for a given discharge than during open flow conditions. This has resulted in an increase in operation constraints on hydropower production during the winter. Additionally, sediment, primarily from the Bad River, continues to accumulate below Farm Island and has contributed to higher stages in water surface during summer and winter conditions increasing the severity and reoccurrence of the flooding problems. If no action is taken to alleviate the flooding during the winter time power generation, the present constraints to power generation will continue and gradually increase. The Oahe powerplant would be operated in a manner that would maximize power generation while avoiding flooding of lowland areas or causing elevated groundwater. Ultimately, power generation would be limited to 25 percent of capacity during the three week constraint period of highest demand in the winter.

FISCAL YEAR 2003: The requested amount of $1,426,000 will be applied as follows:

Item	Amount
Real Estate Activities	$ 381,000
Infrastructure Costs	800,000
Site Clearing	132,000
Flood Proofing of Structures	38,000
Project Management and Engineering Activities	75,000
Total	$ 1,426,000

NON-FEDERAL TOTAL COST: There is no requirement for a non-Federal sponsor for this project.

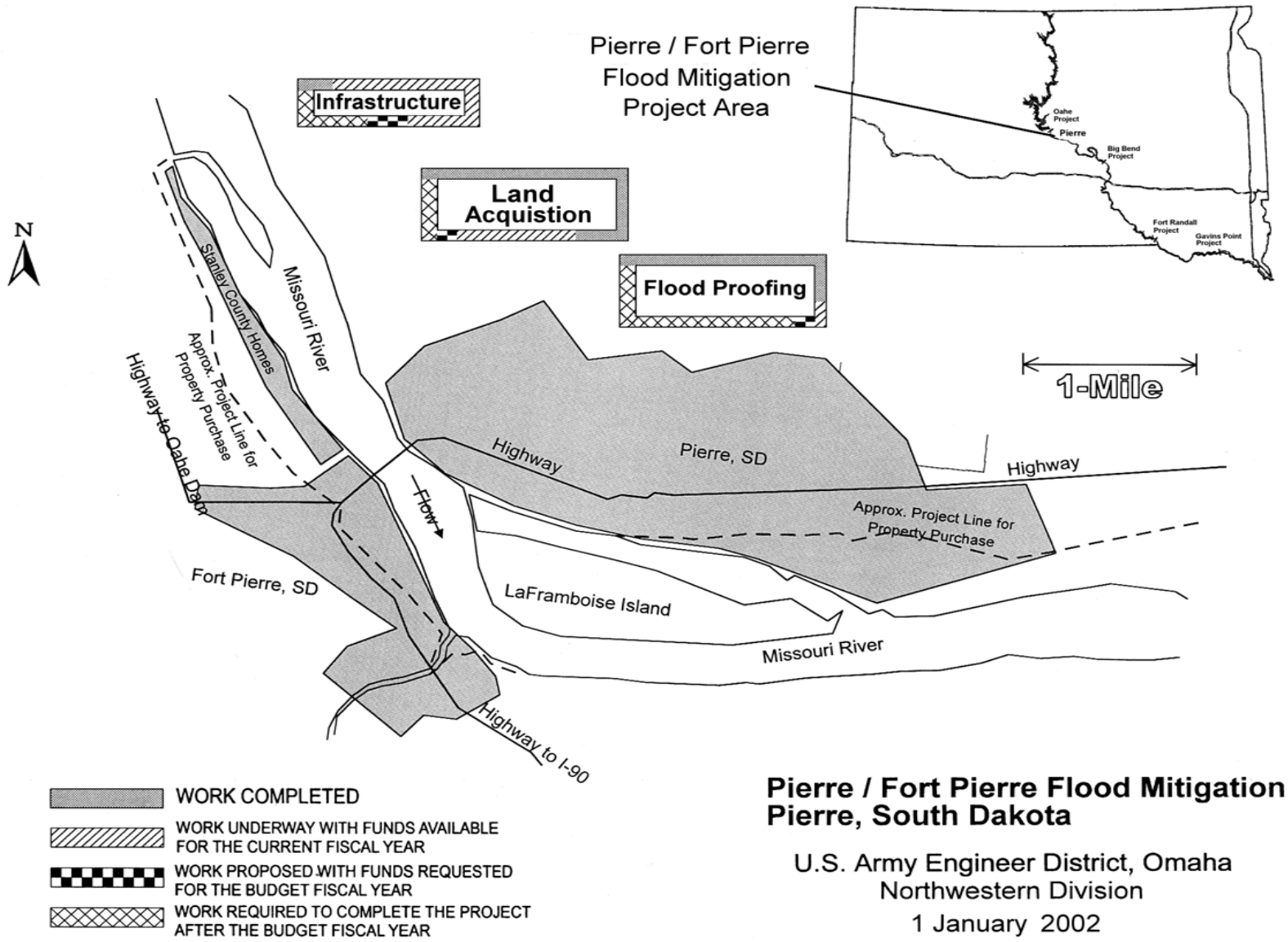
STATUS OF LOCAL COOPERATION: N/A

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $35,000,000 is unchanged from the latest estimate presented to Congress (FY 2002). The cost estimate reflects the limit of Federal appropriations as contained in the authorizing legislation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed acquisition of floodplain property is not a major Federal action that would significantly affect the quality of the human environment, and therefore does not require the preparation of an environmental impact statement.

OTHER INFORMATION: The report required by the authorizing legislation was approved by ASA(CW) on 15 October 1999. The Agricultural Risk Protection Act of 2000 directed the Secretary of the Army to amend the economic analysis to include an assumption that the Federal Government is responsible for mitigating any existing ground water flooding to the land and property described in the report. This amendment to the authorizing legislation allowed the Corps to immediately begin the buyout in accordance with an established priority list.

Mitigation costs will be allocated among the authorized purposes which caused the requirement for mitigation and cost shared to the same extent as other project costs allocated to these purposes. The project will be completely federally funded as the mitigation is for a problem caused by the Oahe Dam project. By funding the project 100 percent Federal and with the costs allocated to the existing Oahe project, 45.83 percent of the costs will be considered joint costs. When WAPA invokes the sub-allocation of 15.8 percent of power costs to future irrigation, the 45.83 percent joint use costs will actually result in a final cost share of 38.6 percent (or $13,500,000) of the $35,000,000 project cost which would be repaid by non-Federal interests.



Division: Northwestern District: Omaha Flood Mitigation, Pierre, South Dakota

4 February 2002

APPROPRIATION TITLE: Construction, General - Environmental Mitigation, Restoration and Protection

PROJECT: Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration - (Continuing)

LOCATION: The lands subject to Section 601 of the Water Resources Development Act of 1999 (WRDA 99) are generally Corps lands located in South Dakota that were acquired by the Secretary of the Army for the implementation of the Pick-Sloan Missouri River Basin program. Land to be transferred to the State is Corps land that is located above the top of the exclusive flood pool of the Oahe, Big Bend, Fort Randall and Gavins Point projects and located outside the external boundaries of a reservation of an Indian Tribe. Lands to be transferred to the Secretary of the Interior are those lands located above the top of the exclusive flood pool of the Big Bend and Oahe projects and located within the external boundaries of the reservation of the Cheyenne River Sioux Tribe and the Lower Brule Sioux Tribe.

DESCRIPTION: Review and submittal to Congress of wildlife habitat restoration plans developed by the State and Indian Tribes. Accomplish the transfer of Corps of Engineers land to State of South Dakota and transfer of Corps of Engineers land to Department of Interior (DOI) for the two Indian Tribes.

AUTHORIZATION: P.L. 106-53 WRDA 99.

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST
Estimated Federal Cost	$107,368,000	
Estimated Non-Federal Cost	0	
Cash Contribution	$ 0	
Other Costs	$ 0	
Total Estimated Project Cost	$107,368,000	
Allocations to 30 September 2001	$7,137,000	
Conference Allowance for FY 2002	7,000,000	
Allocation for FY 2002	7,000,000	1/
Allocations through FY 2002	14,137,000	14
Allocation Requested for FY 2003	1,700,000	15

STATUS: (1 JAN 2002)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	6	September 2010

PHYSICAL DATA

Land - Estimated Acres to be transferred	133,150
(to the State of South Dakota	91,000 Acres)
(to the Cheyenne River Tribe	33,300 Acres)
(to the Lower Brule Tribe	8,850 Acres)
Land - Estimated Acres to remain with the Corps of Engineers	19,400
Recreation Sites to be transferred	81
(to the State of South Dakota	64 sites)

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST	STATUS: (1 JAN 2002)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Programmed Balance to Complete after FY 2003	91,531,000		(to the Cheyenne River Tribe 6 sites) (to the Lower Brule Tribe 11 sites)		
Unprogrammed Balance to Complete after FY 2003	0				
Number of Significant Cultural Sites Involved	388				

1/ Reflects $1,119,000 reduction assigned as savings and slippage and $1,119,000 reprogrammed to the project.

JUSTIFICATION: Transfer of Federal lands to the State and DOI for the two Indian Tribes as authorized by Section 601 of WRDA 99 for the restoration of wildlife stewardship lands.

FISCAL YEAR 2003: The requested amount of $1,700,000 will be applied as follows:

Item	Amount
Fish and Wildlife Activities	$1,265,000
Project Coordination Costs	385,000
Engineering and Design Activities	6,000
Supervision and Administration	44,000
Total	$ 1,700,000

NON-FEDERAL TOTAL COST: There is no requirement for a non-Federal sponsor for this project.

STATUS OF LOCAL COOPERATION: N/A

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $107,368,000 is an increase of $368,000 from the latest estimate ($107,000,000) presented to Congress (Fiscal Year 2002). This change includes the following amounts:

Item	Amount
Price Escalation on Construction Features and Changes in Projected Inflation Rates	$ + 368,000
Other Estimating Adjustments	0
	$ + 368,000

Division: Northwestern

District: Omaha

Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: N/A

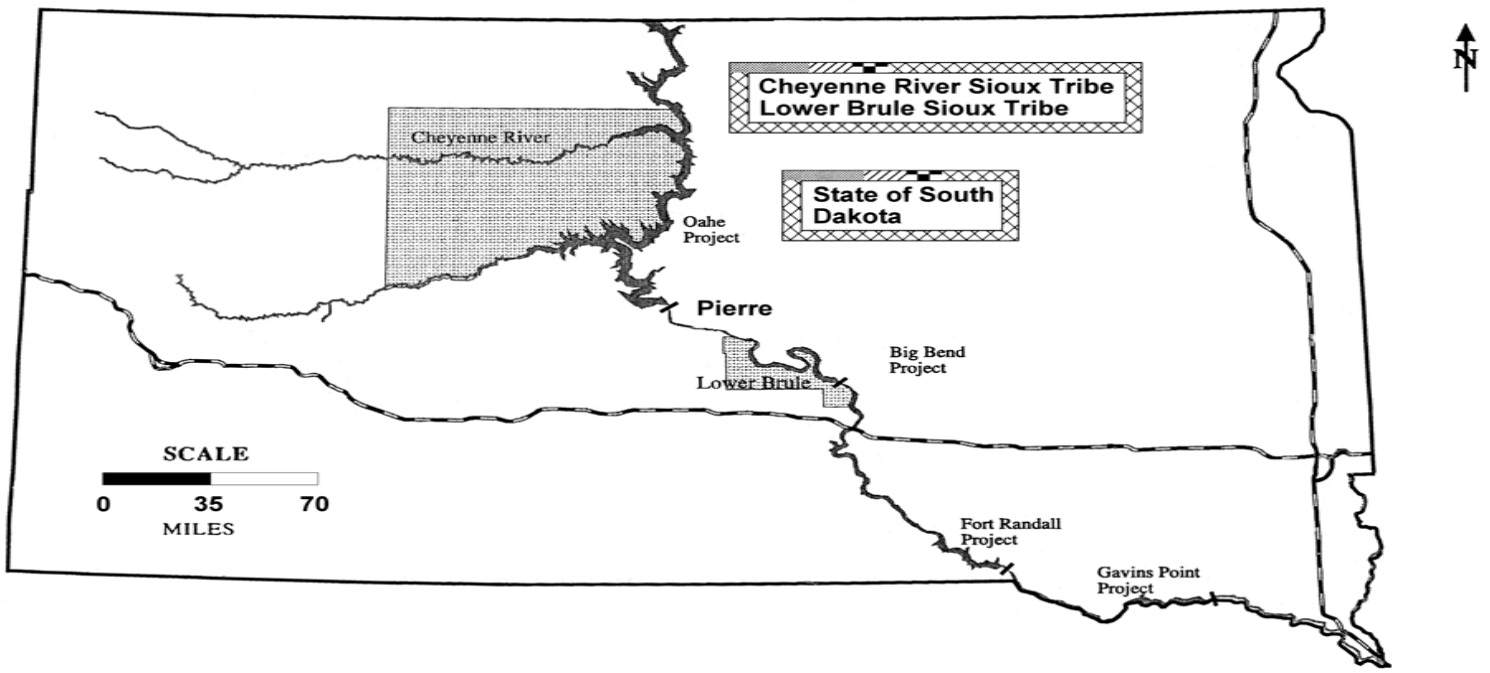
OTHER INFORMATION: In accordance with WRDA 99, trust funds to be established (which will total $165,400,000) by the Treasury of the United States for the State of South Dakota, Cheyenne River Sioux Tribe, and Lower Brule Sioux Tribe, will allow interest to be used for implementation of the restoration program. The State of South Dakota and the two Tribes cannot use interest from trust fund established for implementation of the restoration program until fully capitalized and plans for restoration have been transmitted to Congress through the Secretary of the Army. The plans developed by the State and two Tribes have been transmitted to Congress. Interest from the capitalized fund will be used by the State and Tribes for recreation and wildlife mitigation. State and Tribes must first fully fund annually scheduled work described in restoration plans submitted to Congress. Remaining annual funds are to be used to protect cultural resource sites and all costs associated with management and development of recreation areas.

During the period that it takes the Corps to accomplish the land transfers, the Corps must fund wildlife habitat restoration programs equal to the amount funded in prior year. The Corps must also develop a map of lands needed for project operations for 20 years from the date of the act and dams and related structures that are to be retained by the Secretary of the Army. Normal Corps activities continue until transfer including implementation of the State and Tribe plans for restoration of terrestrial wildlife habitat during transition period. No transfer of land shall occur until a USGS study determines that the transfer of land will not significantly reduce the amount of water flow to the downstream States. The Army has determined, based on the completed USGS study, that the land transfer would not have a significant effect on downstream flows. The Corps loses authority to manage recreation and wildlife habitat and retains authority to operate project consistent with project authorities. The Corps is not responsible for any damages to transferred lands caused by flooding, sloughing, erosion or other changes caused by operations of any project. The Corps is not relieved from complying with NEPA. Implementation satisfies mitigation requirements with the State of South Dakota and the Cheyenne River and Lower Brule Tribes. Silent on remaining responsibilities for Crow Creek Tribes and Standing Rock Sioux Tribe.

Division: Northwestern

District: Omaha

Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration



WORK COMPLETED

WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR

WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR

WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR

Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2002

Division: Northwestern

District: Omaha

Cheyenne River Sioux Tribe, Lower Brule Sioux Tribe, and State of South Dakota Terrestrial Wildlife Habitat Restoration

4 February 2002

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: Columbia River Fish Mitigation, Washington, Oregon, & Idaho (Continuing)

LOCATION: Lower Columbia and Snake Rivers.

DESCRIPTION: The mitigation consists of (1) adult and juvenile fish bypass improvements at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor on the Snake River; McNary, John Day, The Dalles, and Bonneville on the Columbia River, and avian predation controls and habitat improvement measures in the Lower Columbia River estuary, (2) a mitigation analysis, prepared in cooperation with regional interests, to evaluate additional measures to increase fish survival in the Columbia and Snake Rivers. The mitigation analysis provides the analytical process for consideration and implementation of Federal actions necessary to support Regional initiatives and Federal salmon and resident fish ESA requirements.

AUTHORIZATION: 1933 Federal Emergency Administration of Public Works;1935, 1945 and 1950 River and Harbor Acts; 1937 Bonneville Project Act; the 1950 Flood Control Act, and WRDA 1999, Section 582.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable 1/

TOTAL BENEFIT-COST RATIO: Not applicable 1/

INITIAL BENEFIT-COST RATIO: Not applicable 1/

1/ Mitigation is incrementally justified through consideration of costs and non-monetary and monetary benefits; accordingly, a benefit-cost ratio is not computed.

BASIS OF BENEFIT-COST RATIO: Not applicable 1/

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 02)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Total Appropriation Requirement (Corps of Engineers)		$ 1,506,330,000	Entire Project	60	Being Determined
Estimated Other Federal Costs (Bonneville Power Administration)		9,670,000			
Total Initial Federal Cost		1,516,000,000			
Future Non-Federal Reimbursement		1,300,400,000 2/			
Estimated Federal Cost (Ultimate)		215,600,000			
Estimated Non Federal Cost		$1,300,400,000			
Cash Contributions	0				
Other Costs	0				
Reimbursements	$1,300,400,000				
Power	$1,300,400,000				
Total Estimated Project Cost		$1,516,000,000			

2/ Allocation for actual reimbursement by the Bonneville Power Administration is made as each element is placed in service.

Division: Northwestern District: Portland / Walla Walla Columbia River Fish Mitigation Washington, Oregon and ID

		ACCUM. PCT OF EST FED COST
Allocations to 30 September 2001	$ 706,887,000	
Conference Allowance for FY 2002	81,000,000	
Allocation for FY 2002	68,054,000	3/
Allocation through FY 2002	774,941,000	51%
Allocation requested for FY 2003	98,000,000	58%
Programmed Balance to Complete after FY 2003	643,059,000	
Unprogrammed Balance to Complete after FY 2003	0	

3/ Reflects a $12,946,000 reduction assigned as savings and slippage.

PHYSICAL DATA

Lower Granite Lock & Dam
- Extended Screens Including Fish Loading Improvements
- Barge Moorage Expansion
- Fish Transportation Barges
- Bypass Channel Improvement Facilities

Little Goose Lock & Dam
- Aux Water Supply-Fish Ladder
- Extended Screens
- Holding and Loading Facility
- Surface Bypass Facilities

Lower Monumental Lock & Dam
- Screened Bypass
- Extended Screen Bypass
- Holding and Loading Facility
- Surface Bypass Facilities
- Aux Water Supply-Fish Ladder
- Extended Screens

Ice Harbor Lock & Dam
- Screened Bypass
- Aux Water Supply-Fish Ladder
- Spillway Flow Deflectors for Gas Abatement
- Surface Bypass Facilities

McNary Lock & Dam
- Extended Screens
- Holding & Loading Improvements
- Intake Gate Raise
- Adult P.I.T. tag facilities

John Day Lock & Dam
- Juvenile Fish Monitoring Facilities
- Spillway Flow Deflectors for Gas Abatement
- Extended Screens
- Gas Abatement

The Dalles Lock & Dam
- Anadromous fish use and needs in estuary

Emergency Aux Water Supply
- Adult Ladder Dewater System
- Bypass System Maint Facility

Lower Columbia River estuary
- Avian predation controls
- Estuary Evaluations

Bonneville Lock and Dam
- Bypass Channel Improvements
- Outfall Relocation
- Independent Station Service
- Juvenile Fish Monitoring Facilities
- Surface Bypass Facilities Surface Bypass
- Aux. Water Supply modifications

Mitigation Analysis
- Surface Collection and Bypass
- Drawdown of Lower Snake Reservoirs

John Day Fall Chinook Hatchery
- Adult Passage
- Turbine Passage

Phase I Study of John Day Drawdown
- Impacts of Federal Columbia R. Power System and other activities on esturian
- Sluiceway Outfall relocation habitat
- Spill/project Passage Efficiency and Survival Studies
- Delayed & Multiple Bypass Mortality Studies

Division: Northwestern

District: Portland / Walla Walla

Columbia River Fish Mitigation
Washington, Oregon and ID

4 February 2002

JUSTIFICATION: Columbia River Fish Mitigation provides mitigation for the impact of Corps' dams on migrating salmon. Completed and scheduled mitigation measures are based on analyses completed to date. Mitigation measures are being considered as a result of the Northwest Power Planning Council's regional rebuilding efforts for upriver salmon stocks, the NMFS listing of Snake River salmon as threatened/endangered, and the NMFS Biological Opinions on operation of the FCRPS issued on March 2, 1995 and May 14, 1998 and December 21, 2000. The current scope of this project has been adjusted to be in accord with biological opinion. The Mitigation Analysis, begun in FY 1991, is contributing to a regionally cooperative process for analyzing potential new measures.

In response to Section 582 of WRDA 1999 and in recognition of the effects of the hydropower system operations and other Corps activities on the Columbia River estuary and concomitant impacts on salmonids, efforts began in FY 2001 to address habitat and avian predation issues in the estuary.

FISCAL YEAR 2003: The requested amount of $98,000,000 will be applied on major measures as follows (Specific amounts are tentative. See "Potential Changes" below):

Lower Granite	$ 500,000	John Day	
Adult PIT detectors		Extended Length Screen	$3,000,000
		Flow Deflectors	
		Adult PIT detectors	
Little Goose	$ 600,000	The Dalles	
Flow Deflectors		Emergency Auxiliary Water Supply	$7,400,000
		Adult Passage Improvements	
Lower Monumental	$3,300,000	Bonneville	
Outfall Relocation		B2 Surface bypass (Corner Collectors)	$35,000,000
Flow Deflectors		Adult Passage Improvements	
	Lower Columbia River estuary		
		Avian predation controls	$1,600,000
		Estuary evaluations	
		Mitigation Analysis	$38,700,000
		Studies: Surface Bypass at Lower Granite;	
		Lamprey Evaluation Biological	
Ice Harbor	$ 3,100,000	Studies at John Day; Surface Bypass	
Adult Passage System Auxiliary Water		Spillway improvements and Survival Studies	
Adult PIT detectors		at The Dalles; B2 FGE, Adult Fall-back and Survival Studies	
McNary	$ 4,800,000	at Bonneville; Adult Passage, Survival improvements at	
Gas Abatement		Lower Monumental, Delayed mortality, Multiple bypass mortality	
		and Turbine Survival Studies	==========
		Total	$ 98,000,000

NON-FEDERAL COST: Costs eventually determined to be allocable to power are reimbursable. The dams being modified and analyzed are a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Federal Power Marketing Agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATE: The current Initial Federal cost estimate of $1,516,000,000 remains unchanged from the last estimate presented to Congress (Fiscal Year 2002).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Mitigation construction is generally covered by existing environmental impact statements. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service will be held and biological assessments prepared as necessary to conform with requirements of NEPA and of the Endangered Species Act (ESA).

OTHER INFORMATION:
Initial Construction Date. Funds to initiate construction were appropriated in Fiscal Year 1988.

Scheduled Completion Dates: The project completion date is being determined. The last project completion date presented to Congress was September 2007.

Potential Changes: Salmon rebuilding initiatives for Corps implementation have been adopted by the Northwest Power Planning Council as part of the amended Columbia River Basin Fish and Wildlife Program and are required by the NMFS Biological Opinions. In response to the 2000 Biological Opinions, the Corps, BPA, and Bureau of Reclamation have developed one-year and five year implementation plans Both the Council and NMFS emphasize adaptive management – incorporating changes based on new research, monitoring and regional prioritization decisions. This adaptive management approach is regionally recognized and accepted and can affect Corps actions and future budget requirements. Therefore, there is potential for adjustments in measures and activities in the Budget Year.

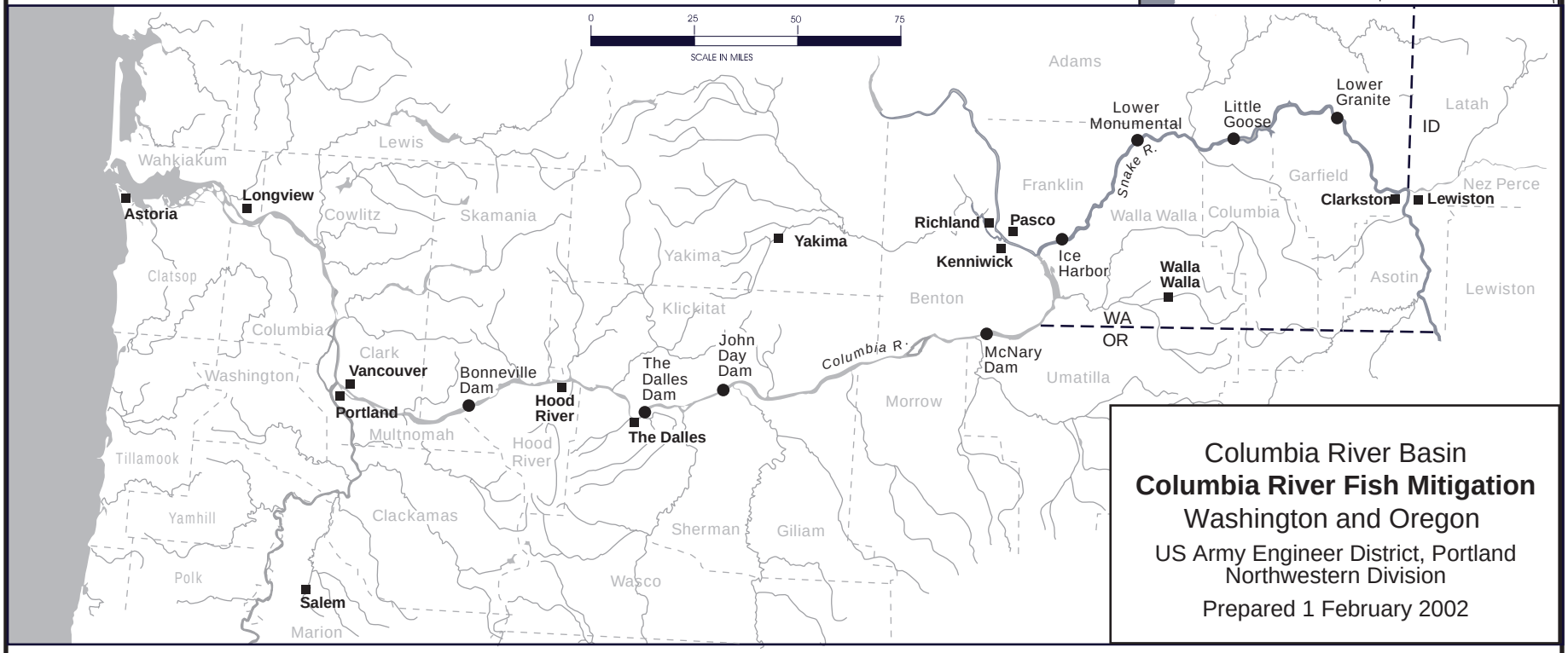
Schedule

100% 50% 0% — Work completed as of FY2001

100% 50% 0% — Work proposed with funds requested for FY2003

100% 50% 0% — Work proposed with funds available for FY2002

100% 50% 0% — Work required to complete project after FY2003



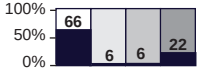
Columbia River Basin

Columbia River Fish Mitigation

Washington and Oregon

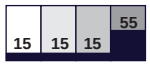
US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002



Mitigation Analysis

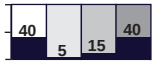
Lower Columbia' River Estuary



Avian Predation Controls

Estuary Evaluations

Bonneville Dam



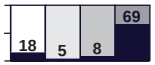
Juvenile Fish Monitoring Facility

Bypass Facility Improvement

Aux. Water Supply

Surface Bypass Facilities

The Dalles Dam



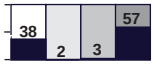
Extended Screens Bypass

Aux. Water Supply

Sluice Outfall

Adult Ladder Dewatering System

John Day Dam

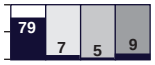


Juvenile Fish Monitoring Facility

Spillway Flow Deflectors

Extended Screens

McNary Dam



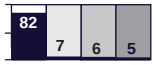
Extended Screens

Holding & Loading Improvements

Adult P.I.T. Tag Facilities

Intake Gate Raise

Ice Harbor Dam

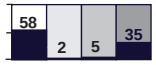


Screened Bypass

Flow Deflectors

Aux. Water Supply

Lower Monumental



Screened Bypass

Holding & Loading Improvements

Aux. Water Supply

Extended Screens

Little Goose

Holding & Loading Improvements

Aux. Water Supply

Extended Screens

Lower Granite

Extended Screens

Holding & Loading Improvements

Bypass Facilities

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Howard Hanson Dam, Ecosystem Restoration and Additional Water Supply, Washington – (Continuing)

LOCATION: Howard Hanson Dam is located on the Green River, in King County, 23 miles upstream and east of Auburn, and about 35 miles southeast of Seattle in western Washington state.

DESCRIPTION: The project will add ecosystem restoration and municipal and industrial (M&I) water supply to the existing flood control project and will meet Endangered Species Act (ESA) requirements necessitated by the recent listing of the Puget Sound Chinook Salmon. Phase I construction will raise the existing flood control reservoir pool 20 feet (from elevation 1,147 feet to elevation 1,167 feet) to increase storage by 20,000 ac–ft for water supply use. Water will be stored in the spring for M&I use in the summer and fall with no changes to flood control capacity. The additional storage will not require structural changes to the existing dam, but may require right abutment seepage remedies. Phase I will also include construction of a new full height fish passage facility and initiation of miscellaneous ESA and environmental restoration features (reconnection of side channels, gravel nourishment, planting of sedge meadows, and placement of large woody debris at multiple locations). Phase II construction will proceed only with the concurrence of the resource agencies, the sponsor, and the Muckleshoot Tribe. It will consist of raising the pool another 10 feet (to elevation 1,177 feet) to store an additional 2,400 ac–ft of M&I water, plus 9,600 ac–ft of low flow augmentation water, for a combined total of 32,000 additional ac–ft of storage.

AUTHORIZATION: Section 101(b)15 of Water Resources Development Act of 1999 (PL 106-53). Flood Control Act of 1950 (PL 81-516) authorized the construction of the original Eagle Gorge Reservoir on the Green River. The project name was changed to Howard A. Hanson Dam in 1958 by P.L.85-592.

REMAINING BENEFIT - REMAINING COST RATIO: 1.3 to 1 at 6 5/8% for the water supply portion of the project.

TOTAL BENEFIT – COST RATIO: 1.3 to 1 at 6 5/8% for the water supply portion of the project.

BASIS OF BENEFIT – COST RATIO: Benefits are from the final Feasibility Study Report/EIS, dated August 1998, at October 1997 price level, with benefits and costs updated to the October 1999 price level.

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost		$ 63,028,000
Estimated Non-Federal Cost		23,312,000
Cash Contributions	$18,711,000	
Other Costs	4,601,000	
Total Project Cost		86,340,000

STATUS (1 Jan 2002)	PERCENT COMPLETE	COMPLETION SCHEDULE
Phase I	12	Sep 2005
Phase II	0	Sep 2013
Entire Project	6	Sep 2015

Division: Northwestern District: Seattle Howard Hanson, Washington

SUMMARIZED FINANCIAL DATA: continued

		Accum
Allocations to 30 September 2001	$ 5,611,000	Percent. of Est
Conference Allowance for FY 2002	3,000,000	Fed. Cost
Allocation for FY 2002	4,400,000 1/	
Allocations thru FY 2002	10,011,000	16
Amount requested for FY 2003	5,776,000	26
Programmed Balance to Complete after FY2003	47,241,000	
Unprogrammed Balance to Complete after FY 2003	0	

1/ Reflects $479,000 reduction for Savings and Slippage and $1,879,000 to be reprogrammed to the project.

PHYSICAL DATA:

Dam: Type:	Rolled earth and rock fill	Spillway: Type:	Ogee crest with two 45' x 30' tainter gates
Height:	235 feet long	Design Capacity:	106,000 cfs
Crest:	500 feet long	Overtopping Capacity:	19,000 cfs
Width:	960 feet at base, 23 feet at crest		

Outlet Tower:		19 Ft. Tunnel:	
Type: Reinforced Concrete		Capacity:	22,000 cfs open channel flow
Free standing section:	107 feet	Normal Release	10,000 cfs
Base section	105 feet	Length	900 feet

JUSTIFICATION: The existing project purposes are flood control and downstream low flow augmentation (the irrigation and M&I water supply purposes of the original authorization have never been implemented). The proposed project is a multi-purpose project with the purposes identified in WRDA 1999 as ecosystem restoration and water supply. Because of the 1999 listing of Chinook salmon as threatened under the ESA, compliance with ESA initiatives is also a major project purpose.

Restoring self-sustaining runs of anadromous fish to the upper Green River watershed is the number one priority of multi-agency ecosystem restoration planning for the Green River basin. Between 1911 and 1913, the City of Tacoma constructed a 17-foot-high water supply diversion dam effectively blocking upstream migration of anadromous fish to the Upper Green River watershed. Howard Hanson Dam was constructed upstream of the diversion dam in the 1960's. The project was constructed with only low-level water conveyance outlets with no provision for fish passage as there was no anadromous fish in the upper watershed. Recently, Section 7 consultation with the NMFS and USFWS has resulted in the requirement that fish passage be provided at Howard Hanson Dam. A state of the art downstream juvenile fish passage facility will be provided by Phase I of this project to work in tandem with an adult trap and haul facility for upstream fish passage to be provided by others. The fish passage, complimented by increased in-stream low flows and other proposed project fish and wildlife habitat restoration measures provide historic opportunities to restore and maintain self sustaining runs of salmon and steelhead in the Green River. Low flow augmentation in the summer months, part of Phase II, will improve spawning habitat and survival success rates downstream of the project. The phased implementation and adaptive management measures proposed for the project allow for the flexibility to make adjustments to ensure the protection and recovery of fish and wildlife.

The availability and quality of water is an increasing concern in the South Puget Sound Region and the Seattle-Tacoma metropolitan area as best exemplified by recent droughts that have led to water rationing. The region's continuing growth and development and continually expanding population depend upon a reliable supply of water. The Project Phase I water storage is a crucial part of the regional water supply plan and is the major component of the Tacoma-Seattle water supply inter-tie, scheduled for completion in 2005. It is imperative that this additional water storage project be completed by February 2006 to meet multi-agency plans for water supply and reservoir refill. The storage of additional M&I and low flow augmentation water will provide a stable, cost effective water supply for the people and wildlife of the region well into the 21st century.

FY 2002 funds are being used to initiate project construction. This includes continuing the project design, executing the PCA, and beginning project construction with the initiation of the Excavation and Cofferdam contract for the fish passage facility. We will also construct the New Project Administration Building using a Design Build contract.

FISCAL YEAR 2003: The requested amount will be applied as follows:

Continue tower excavation and cofferdam construction contract	$ 4,526,000
Planning, Engineering and Design	850,000
Construction Management	400,000
Total	$ 5,776,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction	Annual Operation, Maintenance and Replacement Costs
Provide lands, easements, rights of way, and relocations	$ 4,601,000	
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, repair, rehabilitation and replacement of municipal and industrial water supply facilities.	17,298,000	$108,000
Pay 35 % of the costs allocated to fish and wildlife enhancement, and pay 100 % of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	1,413,000	634,000
TOTAL NON-FEDERAL COSTS	$23,312,000	$742,000

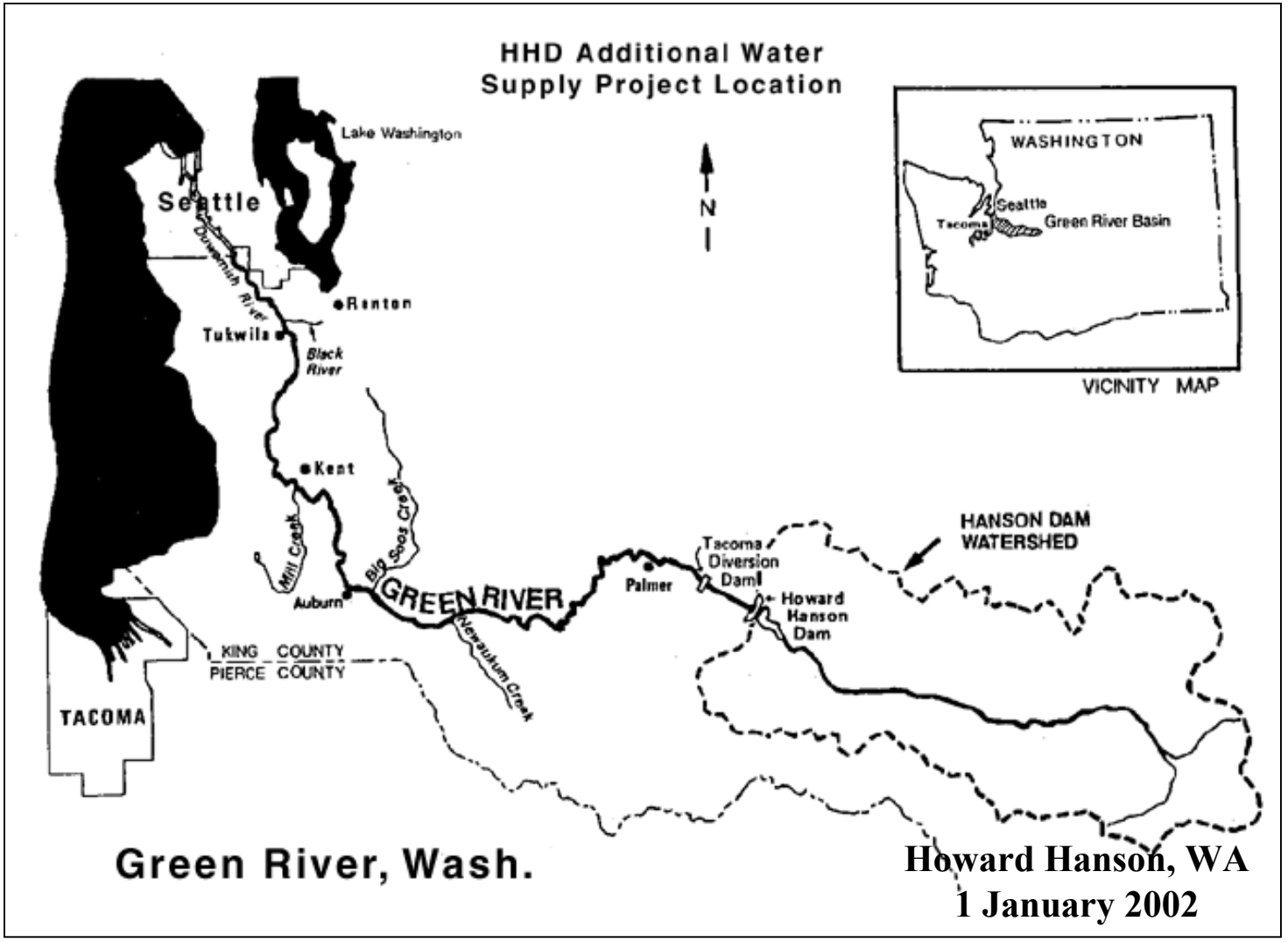
STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the City of Tacoma Public Utilities who is prepared to sign the project PCA in the spring of 2002.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS is scheduled to be filed with the EPA on July 25, 2001.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $63,028,000 is an increase of $1,836,000 from the latest estimate of $61,192,000 submitted to the Congress (FY 2002). This increase is due entirely to a price level increase caused by a delay in project initiation of one year.

OTHER INFORMATION: Howard Hanson Dam also provides flood control storage on the Green River. Downstream of the dam is the Auburn-Kent Valley with the cities of Auburn, Kent, Renton, Algona, Pacific, and Tukwila. The dam provides flood protection for residential areas, agricultural lands, and intensively developed industrial and commercial areas. The Boeing Space Center, a major defense contractor, is located in the center of the Kent Valley. The number of people who work or live in the flood plain exceeds 250,000. The dam has prevented in excess of $728 million in flood damages since it began operations in 1962, including an estimated $242 million of flood damages prevented from the February 1996 storms.

Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 1998, and the PED agreement was executed with the City of Tacoma Public Utilities in March 1999. The Final Chief's Report on the Feasibility Study Report and EIS for the Howard Hanson Additional Water Storage Project, dated April 1998 and revised in August 1998, was signed in August 1999.


HHD Additional Water
Supply Project Location
Lake Washington
Seattle
Renton
Tukwila
Black River
Kent
Mill Creek
Big Soos Creek
Auburn
GREEN RIVER
Palmer
Tacoma Diversion Dam
Howard Hanson Dam
HANSON DAM WATERSHED
Newaukum Creek
KING COUNTY
PIERCE COUNTY
TACOMA
N
WASHINGTON
Seattle
Tacoma
Green River Basin
VICINITY MAP
Green River, Wash.
Howard Hanson, WA
1 January 2002

APPROPRIATION TITLE: Construction, General - Multiple Purpose Power

PROJECT: Lower Snake River Fish and Wildlife Compensation, Washington, Oregon, Idaho, (Continuing)

LOCATION: Hatchery sites are located at McCall, Idaho, about 1,500 feet downstream from Payette Lake; Lyons Ferry, Washington, at River Mile 59 on the Snake River; Lookingglass, Oregon, about 10 miles northwest of Elgin, Oregon; Hagerman, Idaho, 10 miles west of Twin Falls, Idaho; Irrigon Hatchery, about 10 miles west of Umatilla, Oregon; Dworshak Expansion, Sawtooth Hatchery about 5 miles south of Stanley, Idaho; Magic Valley Hatchery about 4 miles north of Buhl, Idaho; and Clearwater Hatchery about 5 miles west of Orofino, Idaho. Fishing and hunting access and wildlife habitat lands will be located in Washington and Idaho. The riparian lands are located on the Snake and Columbia River Drainages from the Washington/Oregon border upstream to the confluence with the Clearwater River. This reach includes significant tributaries and their watersheds, including (but not limited to) the Walla Walla, Tucannon, Asotin, Grande Ronde, and Imnaha River basins.

DESCRIPTION: The project consists of a number of Chinook and Steelhead hatcheries that will provide 27,000,000 juvenile salmon and steelhead annually. These fish will be released in streams for migration to the Pacific Ocean. Adult salmon and steelhead resulting from these releases will provide both sport and commercial fishing opportunities with over 4 million pounds of fish going to the commercial fisheries and providing approximately 689,000 additional angler days of sport fishing. An estimated 132,000 adult fish will return to the project area of the Snake River. In addition to the anadromous fish, 93,000 pounds of trout will be reared and released in Eastern Washington which will provide 45,000 additional angler days of sport fishing. There will be an aggregate of 24,150 acres in fee or easement for fisherman access, wildlife habitat and hunting access. Additionally, a program has been implemented with Washington State Department of Game to produce the equivalent of 20,000 game birds per year for 20 years. The 1989 Letter of Agreement (LOA) entered into by the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (COE) and the Washington Department of Fish and Wildlife (WDFW) states that Lower Snake River Fish and Wildlife Plan mitigation, as authorized by Pub. L. 94-587 and Pub. L. 99-662, will be measured on a habitat basis in lieu of an “animal number replacement basis.” The “Special Report – Lower Snake River Fish and Wildlife Compensation, Wildlife Habitat Compensation Evaluation for the Lower Snake River Project” submitted in June 1991, concluded that, “Current habitat conditions of project lands do not contribute significantly to meeting compensation goals…” This project will restore 1,916 acres of project forbland; 3,285 acres of project woody riparian land; and 24,271 acres of project grass/shrubsteppe land to pre-project conditions. Additional project restoration effort would include creation of small forested islands and shallows which would provide the additional benefit of creating substantial natural salmon spawning and rearing habitat. Consequently, significant consideration and effort will be given to protecting, preserving and perpetuating natural salmon spawning and rearing habitat which is a significant beneficiary of woody riparian lands.

AUTHORIZATION: Water Resources Development Act of 1976 as modified by the Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable. 1/

TOTAL BENEFIT-COST RATIO: Not Applicable. 1/

INITIAL BENEFIT-COST RATIO: Not Applicable. 1/

BASIS OF BENEFIT COST RATIO: Not Applicable. 1/

1/ Mitigation is incrementally justified through consideration of costs and non-monetary benefits; accordingly, a benefit-cost ratio is not computed.

SUMMARIZED FINANCIAL DATA		ACCUM PCT. OF EST	STATUS: (1 Jan 02)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirements	$261,000,000	FED COST	Entire Project	88	Sep 2009
Future Non-Federal Reimbursement	253,307,000		Wildlife Compensation	96	Sep 2002
Estimated Federal Cost (Ultimate)	7,693,000		Fish Facility	87	Being Determined
Estimated Non-Federal Cost	253,530,000		Lands	100	Sep 1994
Cash Contributions $ 223,000					
Reimbursements 253,307,000					
Power $253,307,000					
Total Estimated Project Cost	261,223,000				
Allocations to 30 Sep 2001	230,662,000				
Conference Allowance for FY 2002	2,555,000				
Allocation for FY 2002	2,147,000 2/				
Allocations through FY 2002	232,808,000	89			
Allocation Requested for FY 2003	4,600,000	90			
Programmed Balance to Complete after FY 2003	23,592,000				
Unprogrammed Balance to Complete after FY 2003	0				

2/ Reflects $408,000 reduction assigned as savings and slippage.

PHYSICAL DATA

Capacity of Hatcheries	Acquisition of 24,150 acres for fisherman
9,160,000 Fall Chinook Smolts - 101,800 lbs.	access and wildlife compensation and improvement
6,750,000 Spring and Summer Chinook Smolts - 450,000 lbs.	of land for wildlife compensation.
11,020,000 Summer Steelhead - 1,377,500 lbs.	Restore 1,916 acres of project forbland, 3,285 acres of project
93,000 lbs. Of Resident Sport Fishery	woody riparian land, and 24,271 acres of project grass/shrubsteppe land to pre-project conditions.

JUSTIFICATION: The Lower Snake River Fish and Wildlife Project will provide for losses to fish and wildlife resources caused by construction and operation of the four dams (Ice Harbor, Lower Monumental, Little Goose, and Lower Granite) constituting the Lower Snake River Project, authorized by P.L. 79-14, as is required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) in accordance with the requirements of the Lower Snake River Fish and Wildlife compensation Plan negotiated in accordance therewith and subsequently authorized by P.L. 94-587 and P.L. 99-662.

Division: Northwestern District: Walla Walla Lower Snake River Fish and Wildlife Compensation, Washington, Oregon & Idaho

FISCAL YEAR 2003: The requested amount of $4,600,000 will be applied as follows:

Continue Woody Wetland Riparian Habitat	$4,600,000
Total	$4,600,000

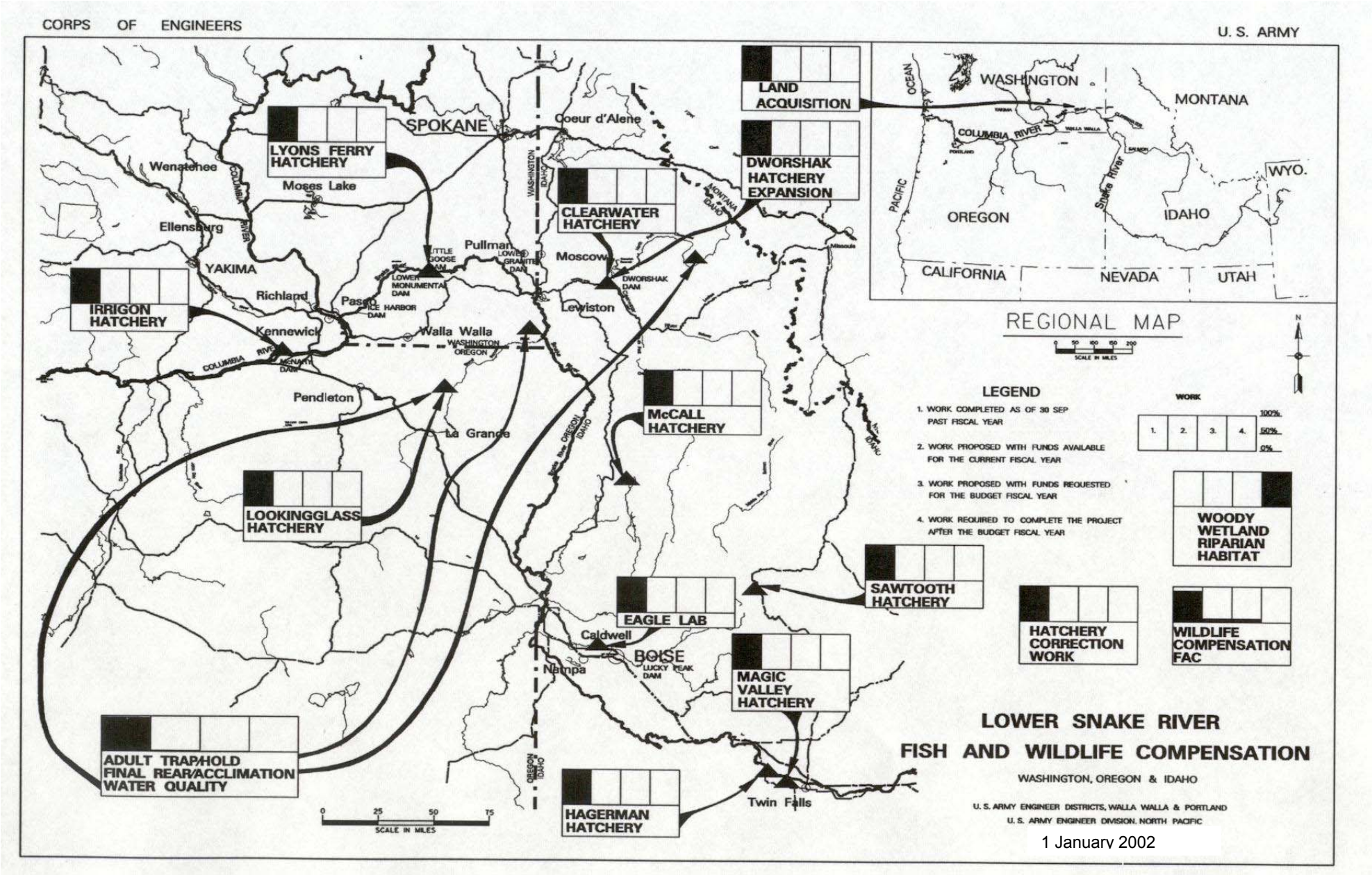
NON-FEDERAL COSTS: Costs allocable to power presently estimated at $253,307,000 are reimbursable. This project is a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Federal marketing agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations. In addition, a cash contribution to expand the Lyons Ferry Hatchery ($223,000) has been furnished.

STATUS OF LOCAL COOPERATION: None required for construction.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $261,000,000 is the same estimate presented to Congress (FY 2002) last year.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 29 October 1977. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service will be held and biological assessments prepared as necessary to conform with requirements of the Endangered Species Act.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1978 and for Construction in Fiscal Year 1979. The purpose of the entire project is fish and wildlife compensation for the four mainstem dams on the Snake River.



Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation, Washington, Oregon & Idaho

4 February 2002

APPROPRIATION TITLE: Construction, General – Environmental Mitigation, Restoration and Protection

PROJECT: Missouri River Restoration, SD (Continuing)

LOCATION: The Missouri River in South Dakota includes parts or all of four of the six main stem dams on the Missouri River,including Gavins Point Dam, Big Bend Dam, Fort Randall Dam and Oahe Dam. The Missouri River watershed affecting these lakes encompasses a major portion of the Missouri River Basin.

DESCRIPTION: A state wide program to improve conservation, reduce the deposition of sediment and take other steps necessary for proper management of the Missouri River.

AUTHORIZATION: Title IX of the Water Resources Development Act of 2000.

REMAINING BENEFIT-REMAINING COST RATIO: N/A.

TOTAL BENEFIT-COST RATIO: N/A.

BASIS OF BENEFIT-COST RATIO: N/A.

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost		$ 30,750,000
Estimated Non-Federal Cost		917,000
Cash Contribution	$ 333,000	
Other Costs	$ 584,000	
Total Estimated Project Cost		31,667,000

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2001	$ 0	
Conference Allowance for FY 2002	750,000	
Allocation for FY 2002	750,000	
Allocations through FY 2002	750,000	2
Allocations Requested for FY 2003	$ 750,000	5
Programmed Balance to Complete after FY 2003	$10,800,000	
Unprogrammed Balance to Complete after FY 2003	18,450,000	

	STATUS (1 Jan 2002)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project		0	September 2005

PHYSICAL DATA

Physical data to be developed as planning on project proceeds.

JUSTIFICATION: Address sedimentation impacts at the Missouri River Main Stem Lakes in South Dakota. The act purposes are to reduce Missouri Riversiltation, improve conservation in Missouri River watershed, protect recreation, improve water quality, and protect historical and cultural sites from erosion.

FISCAL YEAR 2003: The Administration's review of this project has not been completed. If the Administration recommends proceeding with the project the requested amount would be used to initiate the implementation plan required by WRDA 2000 in the State of South Dakota.

NON-FEDERAL TOTAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 2000, the non-Federal sponsors must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction And Reimbursements		Annual Operation, Maintenance Repair, Rehabilitation and Replacement
Provide all lands, easements, right-of-ways, And dredged material disposal areas		1/	
Pay 25% of costs allocated to the Preparation of the initial assessment	$ 250,000	2/	
Pay 25% of costs allocated to the Implementation Pan	$ 250,000	3/	
Pay 35% of costs allocated to the Construction of the Implementation Plan Deemed non-critical by the Task Force		1/	100%

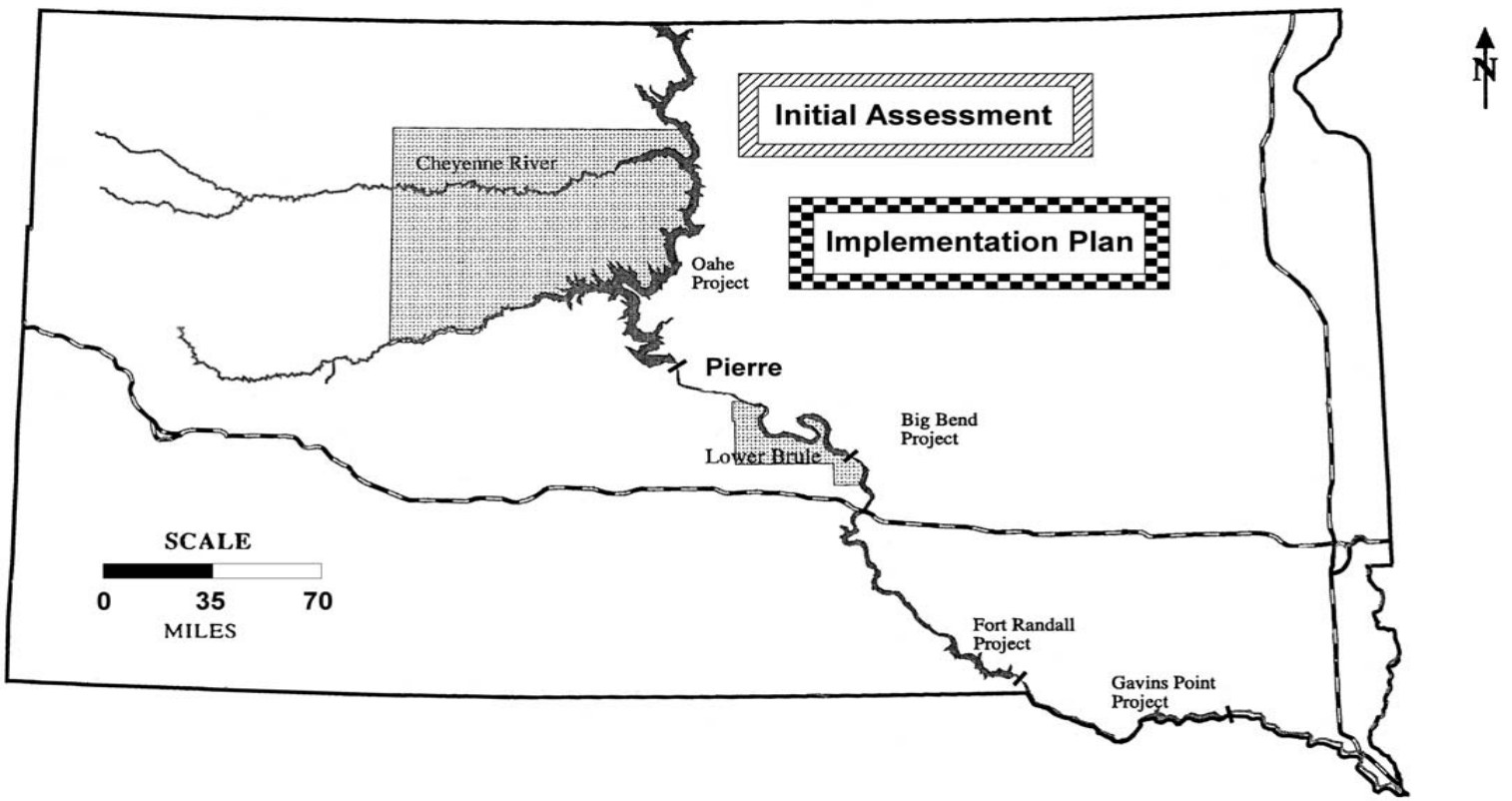
1/ Costs to be developed as planning on project proceeds.
2/ May be provided in the form of services, materials, or other in-kind contributions.
3/ Not more than 50% may be provided in the form or services, materials or other in-kind contributions.

STATUS OF LOCAL COOPERATION: In general, all agencies and local citizens and groups are in favor of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $30,750,000 is the initial estimate presented to Congress (2002) and reflects the limit of remaining Federal appropriations as contained in the authorizing legislation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Requirements will be developed as the Initial Assessment and the Implementation Plan are developed.

OTHER INFORMATION: Guidance for implementation has not been developed, however, Title IX specifies the following: The Missouri River Trust, a committee of 25, would include 15 members recommended by the Governor of South Dakota and 10 members representing the nine tribes in South Dakota and the Three Affiliated Tribes of North Dakota. The Missouri River Task Force would include the Secretary of Army, the Secretary of Agriculture, the Secretary of Energy, the Secretary of Interior, and the Missouri River Trust. The Secretary of Army is to provide a report to the other task force members within 18 months of initial appropriations. The Task Force votes on the plan, reviews projects proposed by the plan and identifies critical projects to the Secretary of Army. Within 3 years a plan for implementation would be developed. The plan would be reviewed annually and modified as needed by the Task Force. Title IX authorized to be appropriated $10,000,000 in each of the Fiscal Years 2001 through 2005. Thirty percent of funds used on critical restoration projects are to be used within the boundary of an Indian Reservation.



WORK COMPLETED

WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR

WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR

WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR

Missouri River Restoration, SD

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2002

APPROPRIATION TITLE: Construction, General (Navigation)

PROJECT: Missouri River Fish and Wildlife Mitigation, Iowa, Nebraska, Kansas, and Missouri (Continuing)

LOCATION: All mitigation will occur in the Missouri River and its floodplain in the states of Iowa, Nebraska, Kansas, and Missouri. Project limits are from Sioux City, Iowa, to the mouth, 735 river miles.

DESCRIPTION: The project will mitigate the losses to fish and wildlife resulting from the construction and operation of the Missouri River Bank Stabilization and Navigation Project (BSNP). Construction of the BSNP was completed in 1980, and it is now being operated and maintained. WRDA 86 authorized the Corps to acquire and develop fish and wildlife habitat on 29,900 acres of land and to develop an additional 16,900 acres of existing public lands (state or other Government-owned). WRDA 99 authorized the Corps to acquire and develop habitat on an additional 118,650 acres.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1999.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST	STATUS: (1 Jan 2002)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$3,059,687,000		Entire Project	2	Sep 2042
Estimated Non-Federal Other Costs	0				
Total Estimated Project Cost	3,059,687,000				
Allocations to 30 September 2001	62,448,000				
Conference Allowance for FY 2002	12,609,000				
Allocation for FY 2002	10,594,000	1/	1		
Allocations through FY 2002	73,042,000		2		
Allocation Requested for FY 2003	17,500,000		3		
Programmed Balance to Complete after FY 2003	$2,969,145		PHYSICAL DATA (All Federal)		Acres
Unprogrammed Balance to Complete after FY 2003	0		Land acquisition and habitat development authorized WRDA 1986		48,100
			Land acquisition and habitat development authorized WRDA 1999		118,650 2/
				Total	166,750

1/ Reflects $2,015,000 reduction assigned as savings and slippage.
2/ WRDA 99 authorized additional land acquisition of 118,650 to be started in FY03 after completion of cost estimate study and NEPA documentation.

JUSTIFICATION: The project will preserve and/or restore shallow water aquatic and bottom land terrestrial habitat in the Missouri River Valley to replace some of the habitat loss as a result of the construction and operation of the BSNP. In November 2000 the USFWS issued a Biological Opinion that included language emphasizing the need for significant additional shallow water habitat, primarily to benefit the endangered pallid sturgeon. The project will implement measures to respond to this requirement of the Biological Opinion and will mitigate a portion of habitat losses which have resulted from the project. Lands needed for implementation will be acquired from willing sellers to the extent possible.

FISCAL YEAR 2003: The requested amount of $17,500,000 will be applied as follows:

Item	Amount
Continue Land Acquisition	$5,500,000
Planning, Engineering, and Design	2,000,000
Continue Construction	9,000,000
Construction Management	700,000
Operation and Maintenance during construction	300,000
Total	$17,500,000

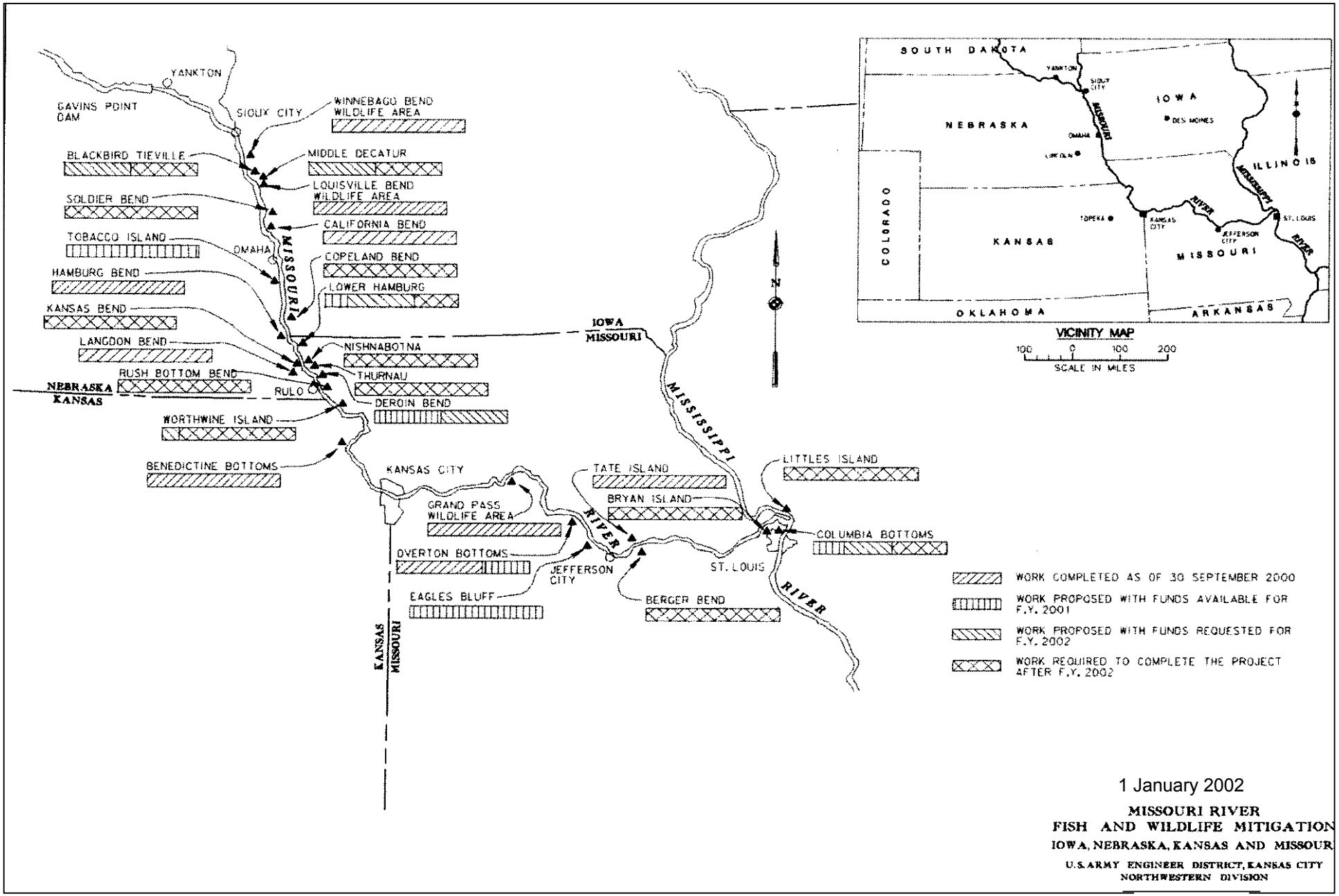
NON-FEDERAL COSTS: Not applicable

STATUS OF LOCAL COOPERATION: The authorizing act provides that the entire cost of this project, including all lands, easements, right-of-way, and relocations, and all operation and maintenance costs be borne by the Federal Government with no costs to either local or state governments. Therefore, there is no non-Federal sponsor for the project. The States of Iowa, Nebraska, Kansas, and Missouri and the USFWS are cooperatively providing support in the form of technical information, site priorities, public involvement, and related information. The States and USFWS are also providing public land by easement for habitat development.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $3,059,687,000 is an increase of $2,974,287,000 from the latest estimate ($85,400,000) submitted to Congress (FY 2001). This change includes an authorized modification to the project to complete acquisition and habitat development of the additional 118,650 acres and costs implement measures to comply with the USFWS Biological Opinion on operation of the BSNP Project.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Missouri River Mitigation Project Final Environmental Impact Statement was filed with the U.S. Environmental Protection Agency on 23 December 1982. A supplement to the EIS is being developed with regard to acquisition and habitat development on the additional 118,650 acres recently authorized. The supplement is scheduled to be completed in FY03.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design were appropriated in FY 1990. Initial construction funds were appropriated in FY 1992. Project completion is scheduled for 2042. USFWS issued a Biological Opinion on the operation of the mainstem Missouri River, the BSNP, and the Kansas River projects in November 2000. The Biological Opinion establishes a timetable for shallow water habitat development, the first step of which is to occur by 2005. Shallow water habitat development is to continue until 2020 or until that time that the endangered pallid sturgeon is recovered.



Division: Northwestern District: Kansas City/Omaha Missouri River Fish and Wildlife Mitigation

4 February 2002

APPROPRIATION TITLE: Construction, General - Local Protection Projects (Multiple-Purpose Power Project)

PROJECT: Willamette River Temperature Control, OR

LOCATION: Located in the Willamette River Basin in northwestern Oregon and contains an area of approximately 12,000 square miles.

DESCRIPTION: During the last 40 years, 13 Corps reservoirs have been constructed in the basin to control floods, generate power and provide water for navigation, irrigation, improving water quality, recreation and fish and wildlife. State and Federal resource agencies including the Northwest Power Planning Council want to modify water temperatures downstream from two reservoirs, Blue River and Cougar, to achieve more beneficial temperatures for anadromous fish under present flow conditions in the McKenzie River sub-basin. Project facilities are intended to restore fish and wildlife habitat by improving downstream water temperatures that may have been degraded by the existing Corps projects at Blue River and Cougar Lakes. Restoring pre-project temperatures will improve survival rates and increase populations of three important native fish species: the wild stock of Willamette spring chinook salmon (a species listed as threatened in March 1999 under the Endangered Species Act, ESA), the bull trout (listed as threatened in July 1998 under the ESA), and the rainbow trout. These fisheries once provided important recreational and commercial benefits to the region. Justification for the project is based on non-monetary fishery and other biological benefits. Since benefits are non-monetary, a benefit-to-cost ratio has not been prepared. A feasibility study was completed in April 1995.

AUTHORIZATION: Water Resources Development Act of 1996 (PL 104-303), October 12, 1996; Water Resources Development Act of 1999 (PL 106-53), August 17, 1999.

REMAINING BENEFIT - REMAINING COST RATIO: N/A

1/ Mitigation is incrementally justified through consideration of costs and monetary and non-monetary benefits. A benefit-cost ratio is not computed.

TOTAL BENEFIT-COST RATIO: N/A 1/

INITIAL BENEFIT-COST RATIO: N/A 1/

BASIS OF BENEFIT-COST RATIO: N/A 1/

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 02)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement		$ 72,000,000			
Future Non-Federal Reimbursement		9,890,000			
Estimated Federal Cost (Ultim		62,110,000	Entire project	28 %	30 September 2008
Estimated Non-Federal Cost		9,890,000			
Cash Contribution	$ 0				
Other Costs	$ 0				
Reimbursements		9,890,000			Power
Total Estimated Project Cost			72,000,000		

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST. FED COST
Allocations to 30 September 2001	$18,143,000	
Conference Allowance for FY 2002	9,000,000	
Allocation for FY 2002	7,562,000 2/	
Allocations through FY 2002	25,705,000	36%
Allocation Requested for FY 2003	6,000,000	44%
Programmed Balance to Complete after FY 2003	40,295,000	
Unprogrammed Balance to Complete after FY 2003	0	

PHYSICAL DATA

Improvements: Modifications of the existing intakes towers by adding new wetwells with discrete throttled ports at Cougar and Blue River projects.

2/ Includes a $1,438,000 reduction assigned as savings and slippage.

JUSTIFICATION: The Willamette River spring chinook salmon was listed as threatened in March 1999 under the ESA and the bull trout is listed as threatened (July 98). Both of these species and the native rainbow trout will benefit as a direct result of this project. It is expected that this project will reverse the decline of the once popular fisheries stocks on the McKenzie River and preclude the listing of yet another of the region's highly valued fish species. Construction of Cougar and Blue River reservoirs in the 1960's and subsequent operation altered the temperature regime of the South Fork McKenzie, Blue, and the McKenzie rivers below the projects. Because of reservoir operation for flood control, river temperatures are now warmer in fall and early winter and cooler in spring and summer than they were prior to reservoir construction. The magnitude of impacts to fisheries from change in temperature regimes of the rivers below the dams were not expected at the time of design and construction. These effects are primarily above Leaburg Diversion Dam near Vida. Populations of salmon and resident trout are less than optimal due to failure of the fish to migrate to available habitat on the mainstem McKenzie above Leaburg. Habitats below Leaburg are overcrowded. Fishery resource agencies' studies indicate that the reason for the underutilization of habitat above Leaburg is due to the change in temperature regime. Restoring water temperatures downstream of these projects to general pre-project conditions will benefit native Willamette spring chinook salmon, bull trout, and native rainbow trout. Installation of selective withdrawal at both projects will significantly improve water temperatures in the South Fork and Blue Rivers and provide the best conformance to pre-project water temperatures on the main stem McKenzie downstream to Leaburg Dam.

NON-FEDERAL COSTS: This Project is initially 100% Federal funded. Cougar Dam costs allocated to power will ultimately be reimbursed by the Federal Power Marketing Agency (Bonneville Power Administration). This reimbursement is currently estimated to be $9,890,000. See “Other information” below.

STATUS OF LOCAL COOPERATION: N/A

FISCAL YEAR 2003: The requested amount of $6,000,000 will be applied as follows:

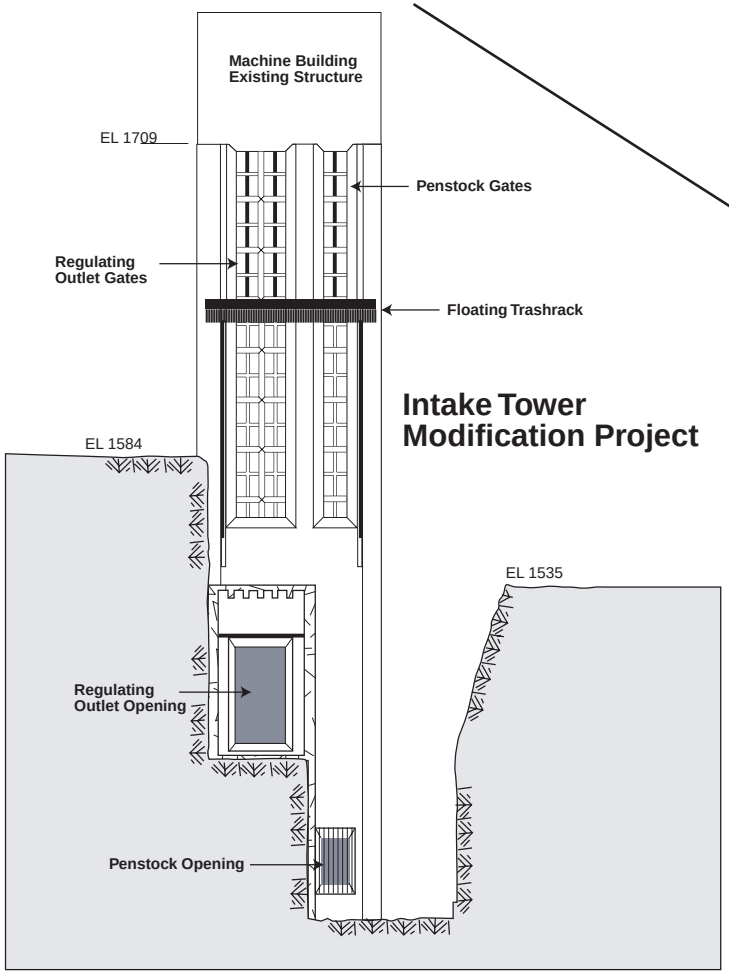
Engineering and Design	$ 422,000
Continue Construction	5,118,000
Construction Management	460,000
Total	$ 6,000,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $72,000,000 remains unchanged from the latest estimate presented to Congress (FY 2002).

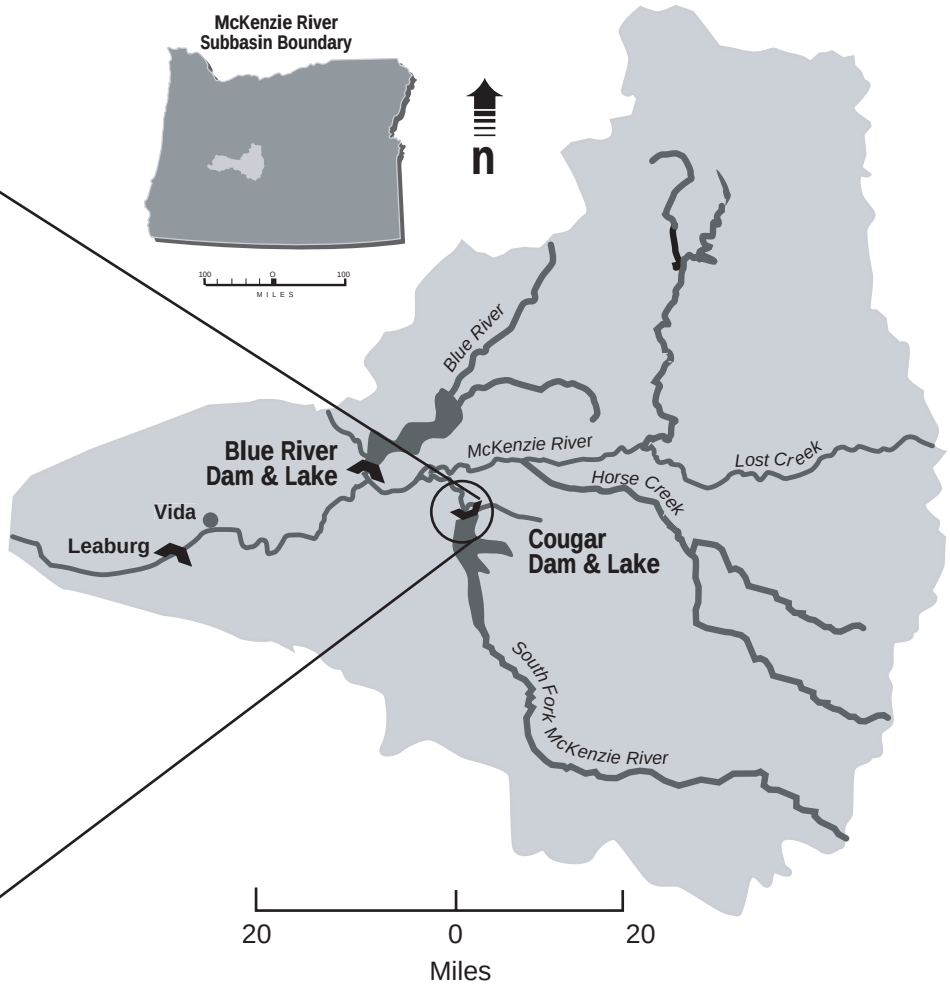
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Impact Statement indicates the potential environmental impacts from the development are minor. The Environmental Impact Statement was completed and a Finding of No Significant Impact was signed by the Division Commander on 24 April 1996.

OTHER INFORMATION: This project is one of many Corps efforts aimed at enhancing listed salmon species in the Columbia River Basin. The cost of the recommended plan will be repaid based on allocations to the original project purposes of flood control, navigation, and hydropower. Prior to the Willamette River Temperature Control project, twenty-three percent of the Cougar project costs were allocated to hydropower and none of the Blue River project costs were allocated to power. Thus, twenty-three percent of the Willamette River Temperature Control Cougar project modification costs will be allocated to hydropower and will ultimately be repaid to the Federal Treasury through rates established by the Bonneville Power Administration (BPA).

The costs presented herein reflect the total estimate for Cougar and Blue River as presented in the Cougar Lake Feature Design Memorandum (FDM), dated July 31, 1998. WRDA 1999 reauthorized the project in accordance with this FDM at a total uninflated cost of $64,741,000.



Intake Tower Modification Project



Schedule

	Work completed as of:
Complete diversion tunnel and award intake tower at Cougar	FY2002
Continue intake tower modification at Cougar Lake	FY2003
Complete intake tower modification at Cougar Lake and Blue River Lake	After FY2003

Willamette River Basin

Willamette River Temperature Control

Oregon

US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002

TITLE: Construction, General (Major Rehabilitation on Multiple-Purpose Power Projects)

PROJECT: Bonneville Powerhouse (Phase II - Main Unit), Oregon and Washington (Continuing)

LOCATION: On the Columbia River 42 miles east of Portland, Oregon, along Interstate 84, between the states of Oregon and Washington.

DESCRIPTION: Rewind or repair six generators, replace ten turbines; rehabilitate and repair the 1st Powerhouse bridge cranes and rails; rehab and repair or replace the electro-mechanical governor-front-ends; and rehab and repair the wicket gates.

AUTHORIZATION: Bonneville Project Act of 1937, August 20, 1937.

REMAINING BENEFIT - REMAINING COST RATIO: 2.77 to 1 at 8.25 percent

TOTAL BENEFIT - COST RATIO: 1.06 to 1 at 8.25 percent

INITIAL BENEFIT - COST RATIO: 1.5 to 1 at 8-1/2 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report submitted 15 March 1992 at March 1992 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COSTS		STATUS (1 JAN 02)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement		$122,800,000					
Future Non-Federal Reimbursement		$122,800,000					
Estimated Federal Cost (Ultimate)		0			Entire Project	54%	Sep 2009
Estimated Non-Federal Cost		$122,800,000					
Cash Contributions	$ 0						
Other Costs	0				PHYSICAL DATA (EXISTING PROJECT)		
Reimbursements	122,800,000				Powerhouse: Number of generating units - 10		
Power	$122,800,000				Total plant capacity - 531,630 kw		
Total Estimated Project Cost			$122,800,000				
Allocations to 30 September 2001			$ 61,199,000				
Conference Allowance for FY 2002			10,000,000				
Allocation for FY 2002			8,402,000	1/			
Allocations through FY 2002			69,601,000	57%			
Allocation Requested for FY 2003			8,913,000	64%			
Programmed Balance to Complete after FY 2003			44,286,000				
Unprogrammed Balance to Complete after FY 2003			0				

1/ Reflects $ 1,598,000 reduction assigned as savings and slippage.

Division: Northwest District: Portland Bonneville Powerhouse, Main Unit - Phase II, OR & WA (Maj Rehab)

JUSTIFICATION: The Bonneville Powerhouse was dedicated on 28 September 1937. This powerhouse was the first of several multi-unit powerhouses constructed by the Corps of Engineers on the Columbia River System. It serves as an integral part of the Northwest Power Pool Transmission Grid and contributes nearly 5% of the total Corps of Engineer's output to the Department of Energy's (Bonneville Power Administration) transmission System. The plant has 10 Kaplan type main unit turbines, with a total rated capacity of 531,630 kW. The original design of the plant was primarily for base load operation. The plant is presently used both as a base load and peaking plant. Current operation of the plant for peaking as well as balancing regional power load variations requires rapid control of generating units to compensate for changing load and voltage conditions. This imposes increased stress on the generating/power train components contributing to the most recent failures (specifically winding coil and blade failures). Moreover, the main operational constraints imposed to enhance fish migration result in more numerous unit starts and stops. Tests conducted by both Bonneville Power Administration and the Corps of Engineers personnel indicate slow voltage and system load restoration response. This work will increase the overall reliability and efficiency power generation and enhance downstream juvenile fish survival due to increased turbine efficiency. The power plant requires frequent and complex maintenance, resulting in increased maintenance costs and, more importantly, lost generating capability through unscheduled equipment outages. Six units have experienced winding failures and one unit out of three is currently derated because of coil failures. Also to be considered is the role which the Second Powerhouse plays in the operation of the first Powerhouse. Since 1983, operation of the Second Powerhouse has been restricted during juvenile fish migration periods (15 March through 15 November). However, with installation of a new juvenile bypass system, the second powerhouse has become the priority powerhouse during spring and summer and the first powerhouse being used to meet firm energy load, control total dissolved gas, or to maintain daytime spill operations at or below 75,000 cfs. Total average annual benefits are estimated to be $9,650,000. For all ten replacement turbines, the contractor has been requested to manufacture and install minimum gap runners. Direct survival field tests indicate that there is less mechanical injury to fish by at least 1% and an increase in peak efficiency by approximately 4.5%

STATUS OF LOCAL COOPERATION: None required for major rehabilitation.

NON-FEDERAL COSTS: Costs allocated to power, presently estimated at $122,800,000, are reimbursable. This project is part of the Federal Columbia River power system. Bonneville Power Administration (BPA), the federal marketing agency, establishes system rate levels adequate to recover all capital investment cost for generating projects (including Corps generating projects) within 50-year period and to repay annual OM&R and interest expenses. BPA submits annual financial statements to Congress, as required by law, on repayment and periodically recommends rate adjustment as required for meeting repayment obligations.

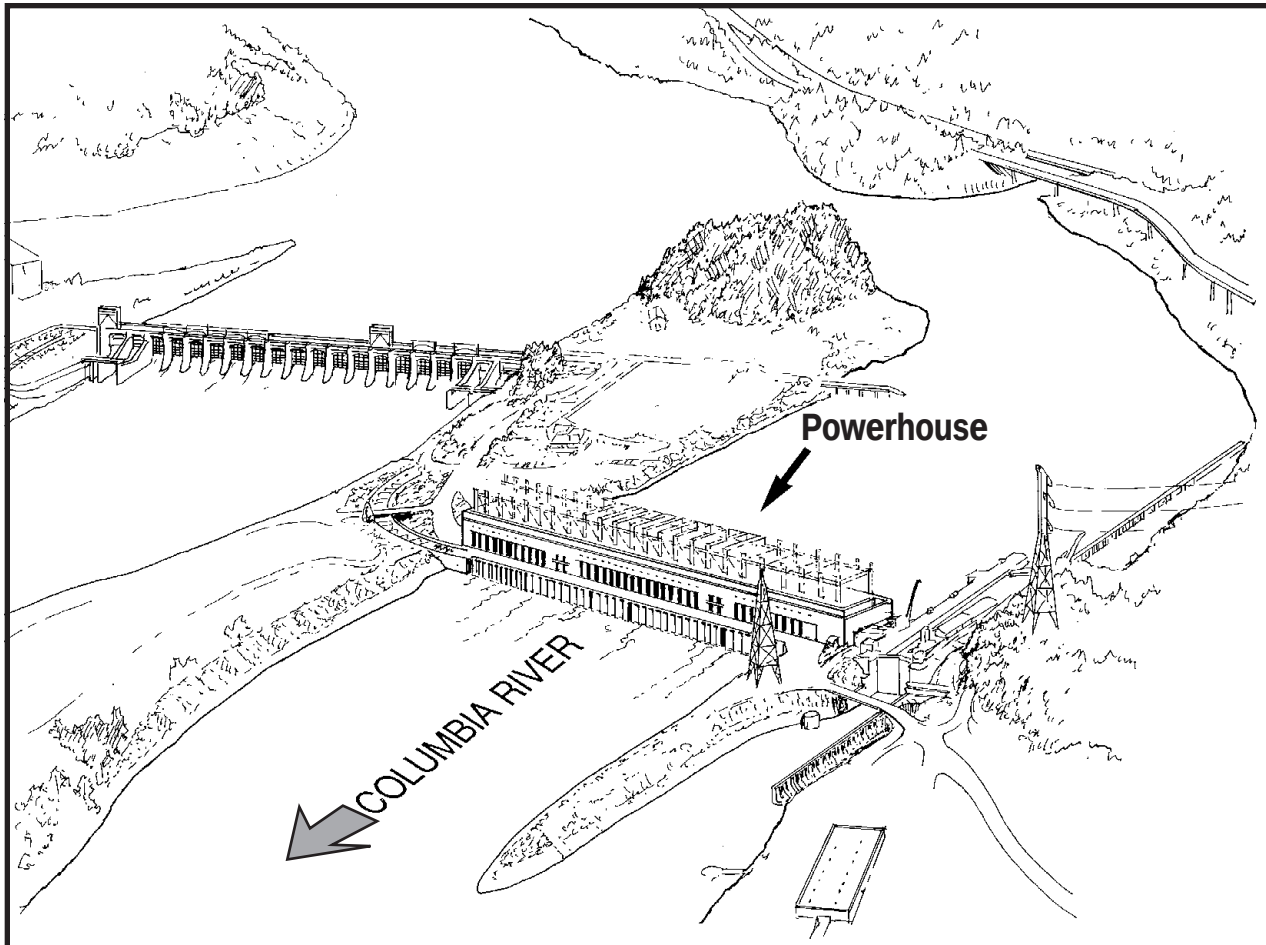
FISCAL YEAR 2003:The requested amount of $ 8,913,000, will be applied as follows:

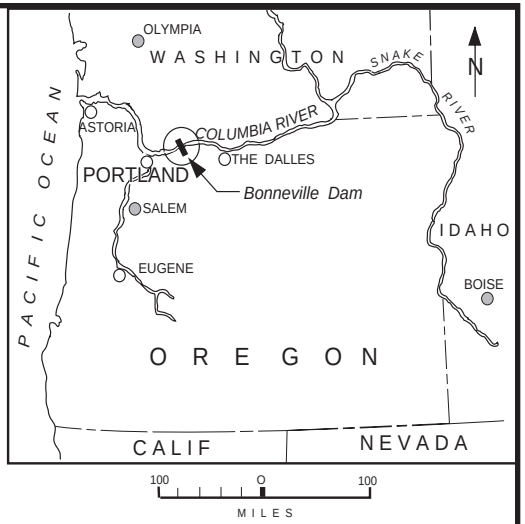
Continue Powerhouse Rehabilitation	$ 7,663,000
Continue Planning, Engineering, and Design	250,000
Continue Construction Management	1,000,000
Total	$ 8,913,000

COMPARISON OF FEDERAL COST ESTIMATE: The current federal cost estimate of $122,800,000 an increase of $12,000,000 over the latest estimate ($110,800,000) submitted to Congress (FY2002). This change is due to contract extension costs.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI) was finalized on 6 March 1992 for the Bonneville Powerhouse, Major Rehabilitation (Phase II) work.

OTHER INFORMATION: Initial construction of the powerhouse was completed in 1943





Schedule

	Work completed as of:
Continue rehabilitation of 10 turbines and 6 generators.	Sept 2001
Continue rehab	FY 2002
Continue and complete rehab work.	FY 2003 and after

Columbia River Basin

Bonneville Powerhouse

(major Rehab)

PHASE II

Oregon and Washington

US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002

APPROPRIATION TITLE: Construction, General (Major Rehabilitation)

PROJECT: Garrison Dam and Power Plant, North Dakota (Continuing)

LOCATION: The Garrison Dam Project is located in McLean and Mercer Counties in North Dakota on the Missouri River approximately 77 river miles upstream of Bismarck near Riverdale, North Dakota.

DESCRIPTION: Garrison Dam and Reservoir is a multi-purpose project consisting of a rolled earth-filled dam with a sheet pile cutoff, a hydroelectric power plant, and a reservoir with storage capacity of 23,821,000 acre feet for flood control, navigation, power, recreation, irrigation, and municipal supply. Five hydraulic turbine-driven generating units with a total plant rated capacity of 518 MW and the operation and maintenance facilities are housed in the powerhouse. The present hydropower benefits directly associated with Garrison Power Plant include (1) clean, non-polluting power generation for the region, and (2) average power generation revenues of about $33.6 million per year to the U.S. Treasury. This major rehabilitation project will replace the existing turbine runners on all five units with new runners designed to improve reliability and maximize efficiency over a broad range of operating conditions.

AUTHORIZATION: Flood Control Act of 1944, PL 78-534 (existing project)

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7 3/4 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7 3/4 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7 3/4 percent (FY 1997)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Garrison Dam & Power Plant Major Rehabilitation Evaluation Report approved 27 February 1995 at 1994 price levels.

SUMMARIZED FINANCIAL DATA:

		STATUS (1 Jan 2002)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost	$55,109,000			
Estimated Non-Federal Cost	0	Entire Project	40	Sep 2007
Cash Contributions	$ 0			
Other Costs	0			
Total Estimated Project Cost	55,109,000			

		ACCUM PCT. OF EST. FED COST
Allocations to 30 September 2001	$ 21,713,000	
Conference Allowance for FY 2002	7,000,000	
Allocation for FY 2002	6,500,000 1/	
Allocations through FY 2002	28,213,000	51%
Allocation Requested for FY 2003	6,500,000	63%
Programmed Balance to Complete after FY 2003	20,396,000	
Unprogrammed Balance to Complete after FY 2003	0	

PHYSICAL DATA

Power Installation: 3 Units at 109,250 KW
2 Units at 95,000 KW
Average Gross Head 161 ft.

1/ Reflects $1,119,000 reduction assigned as savings and slippage and $619,000 reprogrammed to the project.

JUSTIFICATION: All five of the Garrison turbine runners have experienced cracking at the trailing edges of their runner blades near the runner crown. Cracking was first discovered on Unit 3 in 1958 during an annual inspection. Cracking has continued through the years such that occasional repairs of blades in Unit 1 and annual-to-biennial repairs of blades in Units 2 through 5 must be performed. The continued cracking jeopardizes the future reliability of the runners, creating a potential for long outages due to a possible failure requiring complete shutdown of an affected unit. While no failures have occurred, continued weld repairs produce increasingly unfavorable metallurgy and residual stress distribution, increasing the probability of a failure. Studies indicate that without the proposed correction the failure probability will gradually increase until failure occurs. Installation of new improved turbine runners for all five units will avoid such reliability problems, both present and future, by correcting the cyclic loading which causes the turbine runner blade cracking. This will decrease operation and maintenance costs and extend the life of the hydropower plant. Lost plant efficiency will be restored and efficiency will be increased beyond the original 1950's design without an increase in cost over a replacement option using in-kind turbine runners. Average annual benefits are as follows:

Annual Benefits	Amount
Deferred Maintenance Benefits	$ 1,598,000
Restored Efficiency Benefits	4,016,000
Efficiency Improved Benefits	2,773,000
Total Benefits	$ 8,387,000

FISCAL YEAR 2003: The requested amount of $6,500,000 will be applied as follows:

ITEM	AMOUNT
Turbine Runner Work	$ 5,635,000
Planning, Engineering & Design	450,000
Construction Management Activities	415,000
Total	$ 6,500,000

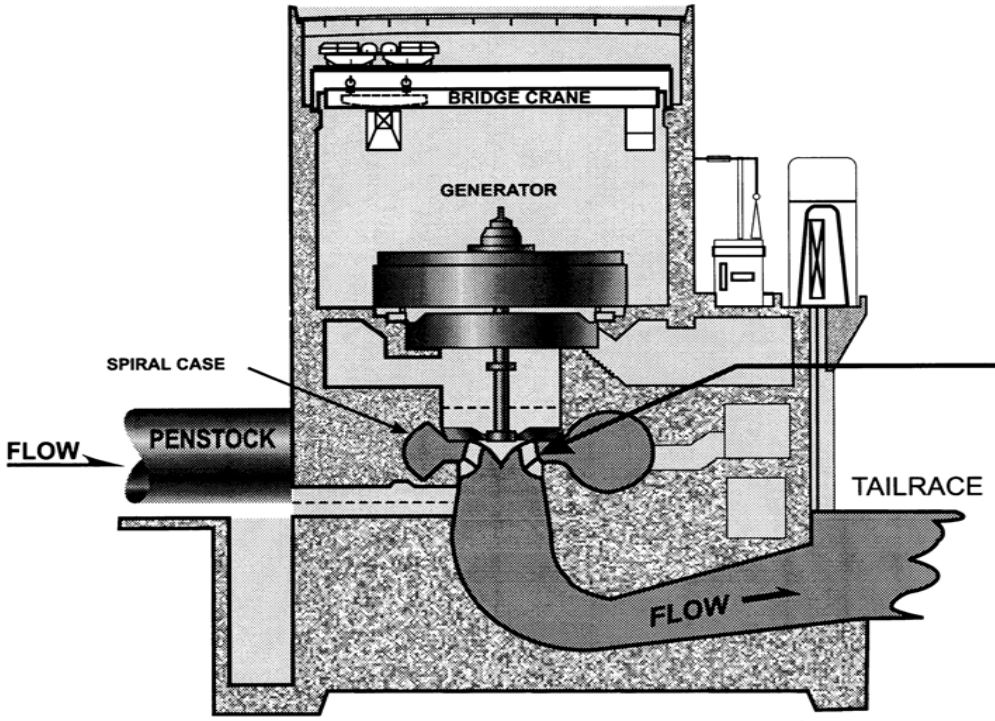
NON-FEDERAL COSTS: There is no requirement for a non-Federal sponsor for this project. Garrison Dam is a multi-purpose project, and the cost for the turbine runner modifications will benefit hydropower generation only. The hydropower from Garrison Powerplant is marketed by Western Area Power Administration (WAPA), thru which project costs are repaid to the Treasury. WAPA has provided a letter stating that they "will be able to market any additional power gained through increased efficiency of the turbines."

STATUS OF LOCAL COOPERATION: N/A COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $55,109,000 is an increase of $10,791,000 from the latest estimate ($44,318,000) presented to Congress (FY 2002). This change includes the following items:

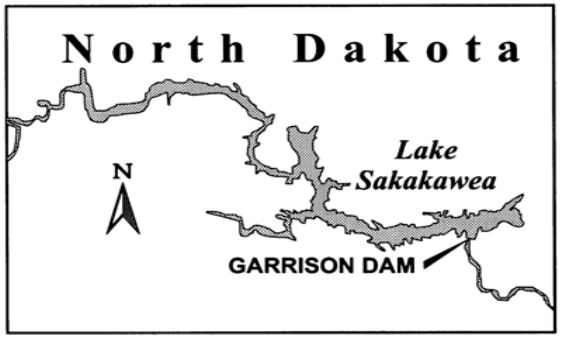
ITEM	AMOUNT
Generator rewind, stator cores and realignment of 3 units	$ + 9,891,000
Other estimating adjustments	+ 891,000
Price escalation on construction features and changes in projected inflation rates	- 9.000
Total	$+ 10,791,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed rehabilitation is not a major Federal action that would significantly affect the quality of the human environment, and therefore did not require the preparation of an environmental impact statement. The U.S. Fish and Wildlife Service concurred with the "Finding Of No Significant Impact."

OTHER INFORMATION: This project consists of replacing all 5 turbine runners at the Garrison Dam Project. Turbine related work will be done under a furnish and install contract. Machining and painting work will be subcontracted. The units being removed will be dismantled and sold as scrap metal, except for one unit which will become a display for the plant tourists. The estimate assumes that only one unit at a time will be off line. A one month allowance has been included in the estimate for startup and testing for each unit prior to starting on the next unit. Additional work consisting of fabricating and installing new wicket gates and replacing existing circuit breakers and transformers was added to the project in FY00. The present worth of the net benefits from the new wicket gates is $9,074,000 with a benefit to cost ratio of 3.6. There is no requirement to undertake fish and wildlife mitigation measures in conjunction with this rehabilitation project. Initial construction of the powerhouse was completed in 1955.



TRANSFER SECTION THRU
GARRISON DAM POWER PLANT



VICINITY MAP

5 TURBINE RUNNERS

WORK COMPLETED

WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR

WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR

WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR

GARRISON DAM & POWER PLANT
NORTH DAKOTA
MAJOR REHABILITATION

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2002

APPROPRIATION TITLE: Construction, General (Major Rehabilitation on Multiple-Purpose Power Projects)

PROJECT: The Dalles Powerhouse (Units 1-14), Washington and Oregon (Major Rehabilitation) (New)

LOCATION: On the Columbia River at the head of Bonneville Lake, 191.5 miles upstream from the mouth of the river and three miles east of The Dalles, Oregon.

DESCRIPTION: Rewind nine generators, refurbish fourteen turbine units, and refurbish two powerhouse bridge cranes.

AUTHORIZATION: River and Harbor Flood Control Act of 17 May 1950, Public Law 516, 81st Congress, 2nd Session; Public Laws 78-534, 85-624, 98-396, and 92-500.

REMAINING BENEFIT - REMAINING COST RATIO: 2.95 to 1 at 7-5/8 percent

TOTAL BENEFIT - COST RATIO: 3.77 to 1 at 7-5/8 percent

INITIAL BENEFIT - COST RATIO: 4.34 to 1 at 7-3/4 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the Evaluation Report submitted 15 March 1995 at October 1995 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 JAN 2002)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Appropriation Requirement	$102,900,000			
Future Non-Federal Reimbursement	$102,900,000			
Estimated Federal Cost (Ultimate)	0	Entire Project	25%	Sep 2010
Estimated Non-Federal Cost	$102,900,000			
Reimbursements $102,900,000				
Power $102,900,000				
Total Estimated Project Cost	$102,900,000			

PHYSICAL DATA (Existing Project)
Powerhouse (Units 1-14)
Units 1-14 capacity - 1,092 MW

	ACCUM PCT OF EST FED COST		
Allocations to 30 September 2001	$ 25,168,000		
Conference Allowance for FY 2002	7,000,000		
Allocation for FY 2002	5,881,000	1/	
Allocations through FY 2002	31,049,000		30%
Allocation Requested for FY 2003	3,000,000		33%
Programmed Balance to Complete after FY 2003	68,851,000		
Unprogrammed Balance to Complete after FY 2003	0		

1/ Reflects $1,119,000 reduction assigned as savings and slippage.

JUSTIFICATION: The Dalles Powerhouse has been producing commercial power since 1957. It serves as an integral part of the Northwest Power Pool Transmission Grid and accounts for 6.5% of the total hydroelectric power generated by the Columbia River Projects. The Dalles Powerhouse itself is nearly one-half mile long with a total of 22 generating units. Fourteen units were installed during initial construction of the powerhouse (1952-1960); eight more units were added later (l969-1972). There are four additional small generating units at the powerhouse; two discharge fish attraction water and two generate power for use at the project. The project's generating capacity is 1,807 megawatts (MW). The Dalles provides hydroelectric power for both base load and peaking operations, but operates primarily in a peaking mode. The peaking operation results in an average of 180 start-stops per unit per year. On Units 1-14, the cumulative effects of age and start-stops resulted in several generator failures that required rewinding. The remaining five of the nine generators are under a multi-year contract for rewinds. In addition, turbine efficiency on units 1-14 has declined an average of two percent, believed primarily due to turbine component surface roughness caused by corrosion. This reduces the total amount of energy The Dalles Project can produce. The current turbine rehabilitation program includes replacement of the turbine blades, however, a turbine blade surface treatment application is being considered as an alternative to blade replacement.

FISCAL YEAR 2003: The requested amount of $3,000,000 will be applied as follows:

Continue Powerhouse Rehabilitation	$2,140,000
Continue Planning, Engineering, and Design	510,000
Continue Construction Management	350,000
Total	$ 3,000,000

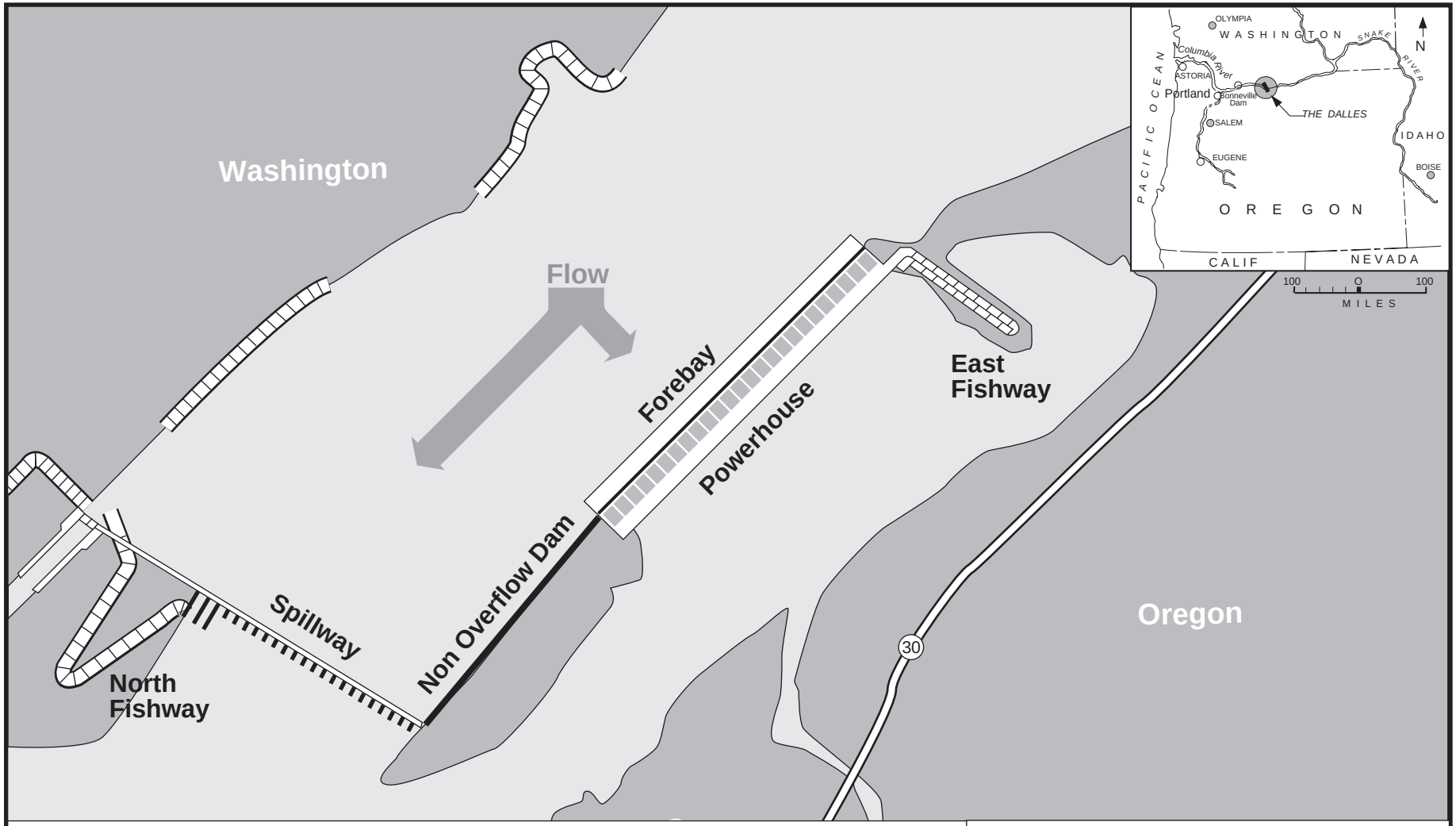
STATUS OF LOCAL COOPERATION: None required for major rehabilitation.

NON-FEDERAL COST: Costs allocated to power, presently estimated at $102,900,000, are reimbursable. This project is a part of the Federal Columbia River power system. Bonneville Power Administration (BPA), the federal marketing agency, establishes system rate levels adequate to recover all capital investment cost for generating projects (including Corps generating projects) within 50-year period and to repay annual OM&R and interest expenses. BPA submits annual financial statements to Congress, as required by law, on repayment and periodically recommends rate adjustment as required for meeting repayment obligations.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $102,900,000 remains unchanged from the latest estimate presented to Congress (FY 2002).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI) was finalized on 13 March 1995 for The Dalles Powerhouse (Units 1-14) Major Rehabilitation work.

OTHER INFORMATION: Initial construction of the powerhouse was completed in 1960.



Schedule

	Work completed as of:
Refurbished 4 of 9 generators	September 2001
Continue generator rehab	FY 2002
Continue and complete generator rehab	FY 2003 and after

Columbia River Basin

The Dalles Powerhouse

(Major Rehab)

Washington and Oregon

US Army Engineer District, Portland
Northwestern Division

Prepared 1 February 2002

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

1. NAVIGATION.

a. Channels and Harbors.

The FY 2003 program request of $52,857,000 provides for essential maintenance work on 27 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of maintaining the navigation channels and basins of coastal harbors by means of dredging, removal of navigation obstructions, and repair of navigation structures, as authorized in the laws adopting river and harbor projects.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
IOWA			
Missouri River, Sioux City,	5,533,000	8,688,000	
Iowa to the Mouth, IA, NE,	(3,033,000)	(4,667,000)	1. Endangered species monitoring & evaluation for the Pallid Sturgeon, Least Tern & Piping Plovers
KS & MO	(2,500,000)	(4,021,000)	2. None
OREGON			
Chetco River	402,000	0	
	(0)	(0)	1. None.
	(402,000)	(0)	2. None.
Columbia and Lower Willamette	13,042,000	14,770,000	
Rivers below Vancouver, WA	(714,000)	(545,000)	1. None.
and Portland, OR	(12,328,000)	(14,225,000)	2. Dredging and provide pile dikes.
Columbia River at the Mouth	7,818,000	6,632,000	
OR and WA	(697,000)	(84,000)	1. Prepare major rehab report for North Jetty FY 02.
	(7,121,000)	(6,548,000)	2. Dredging.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

1. NAVIGATION. (Continued)

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON (Continued)			
Columbia River between	352,000	526,000	
Vancouver, WA and	(96,000)	(94,000)	1. None.
The Dalles, OR	(256,000)	(432,000)	2. Dredging
Coos Bay	4,692,000	5,494,000	
	(158,000)	(144,000)	1. None.
	(4,534,000)	(5,350,000)	2. Dredging.
Coquille River	193,000	0	
	(0)	(0)	1. None.
	(193,000)	(0)	2. None.
Depoe Bay	3,000	0	
	(0)	(0)	1. None
	(3,000)	(0)	2. None.
Port Orford	631,000	606,000	
	(27,000)	(18,000)	1. Prepare breakwater major maintenance report and ocean dredge material disposal site evaluation in FY02.
	(604,000)	(588,000)	2. None.

JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

1. NAVIGATION. (Continued)

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON (Continued)			
Rogue River at Gold Beach	674,000	0	
	(0)	(0)	1. None.
	(674,000)	(0)	2. Dredging.
Siuslaw River	781,000	466,000	
	(59,000)	(54,000)	1. None.
	(722,000)	(412,000)	2. Dredging.
Skipanon Channel	161,000	5,000	
	(5,000)	(0)	1. Periodic sediment quality evaluation FY 02.
	(156,000)	(5,000)	2. None.
Tillamook Bay and Bar	14,000	15,000	
	(14,000)	(15,000)	1. None.
	(0)	(0)	2. None.
Umpqua River	834,000	963,000	
	(59,000)	(61,000)	1. None.
	(775,000)	(902,000)	2. Dredging.
Yaquina Bay and Harbor	2,354,000	1,450,000	
	(172,000)	(73,000)	1. Ocean dredge material disposal site evaluation FY 02.
	(2,182,000)	(1,377,000)	2. Dredging.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

1. NAVIGATION. (Continued)

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
WASHINGTON			
Columbia River at Baker Bay	28,000	0	
	(0)	(0)	1. None.
	(28,000)	(0)	2. None.
Columbia River between Chinook and Sand Island	36,000	0	
	(0)	(0)	1. None.
	(36,000)	(0)	2. None.
Ediz Hook	718,000	0	
	(0)	(0)	1. None.
	(718,000)	(0)	2. Dredging
Everett Harbor and Snohomish River	1,345,000	1,355,000	
	(45,000)	(45,000)	1. None.
	(1,300,000)	(1,310,000)	2. Dredging
Grays Harbor and Chehalis River	11,275,000	8,781,000	
	(284,000)	(808,000)	1. Crab Mitigation/wildlife monitoring FY03.
	(10,991,000)	(7,973,000)	2. Dredging and south jetty extension FY02.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
WASHINGTON (Continued)			
Puget Sound and Its Tributary Waters	938,000 (0) (938,000)	999,000 (0) (999,000)	 1. None. 2. None.
Neah Bay	30,000 (0) (30,000)	0 (0) (0)	 1. None. 2. None.
Quillayute River	1,760,000 (0) (1,760,000)	975,000 (0) (975,000)	 1. None 2. Dredging.
Seattle Harbor	620,000 (25,000) (595,000)	640,000 (40,000) (600,000)	 1. Increased studies. 2. None.
Seattle Harbor, East Waterway Deepening	300,000 (300,000) (0)	0 (0) (0)	 1. Pre-construction E&D for dredging FY02. 2. None.
Swimomish Channel	515,000 (0) (515,000)	0 (0) (0)	 1. None. 2. Dredging in FY02.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

1. NAVIGATION. (Continued)
a. Channels and Harbors. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
WASHINGTON (Continued)			
Willapa River and Harbor	435,000	492,000	
	(55,000)	(78,000)	1. Surveys
	(380,000)	(414,000)	2. None.
Other Projects Maintained	0	0	
Periodically	(0)	(0)	1. None.
	(0)	(0)	2. None.
TOTAL - CHANNELS AND HARBORS	55,484,000	52,857,000	
	(5,743,000)	(6,726,000)	
	(49,741,000)	(46,131,000)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

1. NAVIGATION. (Continued)

b. Locks and Dams.

The FY 2003 program request of $7,823,000 provides the amount for operational requirements of two projects. Annual requirements are for operation and ordinary maintenance of project facilities; labor, supplies, materials and parts required for the day-to-day functioning of projects; and periodic maintenance, repairs, replacement and modernization.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON			
Willamette River at Willamette Falls	291,000 (291,000) (0)	344,000 (344,000) (0)	1. None. 2. None.
WASHINGTON			
Lake Washington Ship Canal	7,200,000 (5,453,000) (1,747,000)	7,479,000 (5,421,000) (2,058,000)	1. None. 2. None.
TOTAL - LOCKS AND DAMS	7,491,000 (5,744,000) (1,747,000)	7,823,000 (5,765,000) (2,058,000)	
TOTAL - NAVIGATION	62,975,000 (11,487,000) (51,488,000)	60,680,000 (12,491,000) (48,189,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL.

a. Reservoirs.

1. Project Reservoirs. The FY 2003 program request of $42,910,000 is for the operation and maintenance of 35 flood control reservoirs and includes essential repair work and scheduling of flood control reservoir eruptions within the Division. Annual requirements are for operation and ordinary maintenance of project facilities; labor, supplies, material and parts required for day-by-day functioning of projects; periodic maintenance, repairs, and replacements; and contract law enforcement. The requested amount also includes application of special recreation use fees for recreation areas.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
COLORADO			
Bear Creek Lake	420,000	315,000	
	(309,000)	(293,000)	1. None.
	(111,000)	(22,000)	2. None.
Chatfield Lake	797,000	1,225,000	
	(757,000)	(798,000)	1. None.
	(40,000)	(427,000)	2. Increased for recreation modernization FY03
Cherry Creek Lake	525,000	894,000	
	(502,000)	(476,000)	1. Relief well and toe drain study FY 02
	(23,000)	(418,000)	2. Increased for recreation modernization FY03
IDAHO			
Lucky Peak Lake	1,526,000	1,488,000	
	(970,000)	(1,036,000)	1. None.
	(556,000)	(452,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. 1. Reservoirs. (Continued)

State / Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
IOWA			
Rathbun Lake	2,195,000	2,189,000	
	(1,641,000)	(1,726,000)	1. None.
	(554,000)	(463,000)	2. None.
KANSAS			
Clinton Lake	2,201,000	1,934,000	
	(1,270,000)	(1,470,000)	Kansas River Model Study FY03
	(931,000)	(464,000)	2. Rural water connection for Bloomington Park
Hillsdale Lake	1,014,000	752,000	
	(703,000)	(557,000)	1. Reduced operations due to centralizing operations FY03
	(311,000)	(195,000)	2. None.
Kanopolis Lake	1,507,000	1,521,000	
	(1,059,000)	(1,002,000)	1. None.
	(448,000)	(519,000)	2. None.
Melvern Lake	2,006,000	2,034,000	
	(1,337,000)	(1,398,000)	1. None.
	(669,000)	(636,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. 1. Reservoirs. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
KANSAS (Continued)			
Milford Lake	1,997,000	1,997,000	
	(1,404,000)	(1,495,000)	1. None.
	(593,000)	(502,000)	2. None.
Perry Lake	2,055,000	2,111,000	
	(1,491,000)	(1,549,000)	1. None.
	(564,000)	(562,000)	2. None.
Pomona Lake	2,130,000	1,897,000	
	(1,435,000)	(1,418,000)	1. None.
	(695,000)	(479,000)	2. None.
Tuttle Creek Lake	2,004,000	2,106,000	
	(1,242,000)	(1,701,000)	1. Implement Biological Opinion an Terns and Plovers
	(762,000)	(405,000)	2. None.
Wilson Lake	2,069,000	1,846,000	
	(1,128,000)	(1,223,000)	1. None.
	(941,000)	(623,000)	2. Continuing Stilling Basin repairs FY03

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. 1. Reservoirs. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
MISSOURI			
Little Blue River Lakes	800,000	935,000	
	(661,000)	(740,000)	1. Increased operational support required due t satellite of projects.
	(139,000)	(195,000)	2. None.
Long Branch Lake	876,000	980,000	
	(627,000)	(771,000)	1. None.
	(249,000)	(209,000)	2. None.
Pomme de Terre Lake	2,204,000	2,168,000	
	(1,592,000)	(1,599,000)	1. None.
	(612,000)	(569,000)	2. None.
Smithville Lake	1,128,000	1,070,000	
	(899,000)	(834,000)	1. None.
	(229,000)	(236,000)	2. None.
NEBRASKA			
Harlan County Lake	2,019,000	2,025,000	
	(1,469,000)	(1,509,000)	1. None.
	(550,000)	(516,000)	2. None.
Papillion and	611,000	669,000	
Tributaries Lakes	(568,000)	(634,000)	1. Periodic Dam Safety Inspections FY03
	(43,000)	(35,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. 1. Reservoirs. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
NEBRASKA (Continued)			
Salt Creek and Tributaries	847,000 (770,000) (77,000)	925,000 (866,000) (59,000)	1. Dam Safety Inspections FY03 2. None.
NORTH DAKOTA			
Bowman-Haley Lake	210,000 (208,000) (2,000)	177,000 (175,000) (2,000)	1. Dam Safety Instrumentation Surveys FY03 2. None.
Pipestem Lake	402,000 (380,000) (22,000)	395,000 (384,000) (11,000)	1. None. 2. None.
OREGON			
Applegate Lake	720,000 (634,000) (86,000)	729,000 (640,000) (89,000)	1. None. 2. None.
Blue River Lake	260,000 (204,000) (56,000)	220,000 (200,000) (20,000)	1. None. 2. None.
Cottage Grove Lake	981,000 (596,000) (385,000)	842,000 (596,000) (246,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. 1. Reservoirs. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON (Continued)			
Dorena Lake	649,000	635,000	
Tributaries	(471,000)	(450,000)	1. None.
	(178,000)	(185,000)	2. None.
Fall Creek Lake	722,000	419,000	
	(284,000)	(328,000)	1. None.
	(438,000)	(91,000)	2. None.
Fern Ridge Lake	952,000	989,000	
	(582,000)	(618,000)	1. None.
	(370,000)	(371,000)	2. None.
Willow Creek Lake	830,000	714,000	
	(541,000)	(561,000)	1. None.
	(289,000)	(153,000)	2. None.
SOUTH DAKOTA			
Cold Brook Lake	433,000	211,000	
	(420,000)	(202,000)	1. Increased dam safety study effort in FY03
	(13,000)	(9,000)	2. None.
Cottonwood Springs Lake	197,000	184,000	
	(181,000)	(168,000)	1. Periodic inspection in FY02
	(16,000)	(16,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. 1. Reservoirs. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
WASHINGTON			
Howard A. Hanson Reservoi	1,739,000	1,777,000	
	(1,223,000)	(1,037,000)	1. Additional ESA study requirements in FY02
	(516,000)	(740,000)	2. None.
Mill Creek, Virgil B.	3,016,000	947,000	
Bennington Lake	(599,000)	(672,000)	1. None.
	(2,417,000)	(275,000)	2. Emergency grouting FY03
Mud Mountain Dam	2,319,000	2,075,000	
	(1,697,000)	(1,415,000)	1. Additional ESA Study
	(622,000)	(660,000)	2. None.
Other Projects Maintainec	0	0	
	(0)	(0)	1. None
	(0)	(0)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

a. Reservoirs. (Continued)

2. Scheduling Reservoir Operations. The FY 2003 program request of $1,515,000 supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of date regulation instructions as necessary at non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	 Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
Scheduled Reservoir Operations	$1,473,000	$1,515,000	
State:			
Idaho	(332,000)	(371,000)	1. None.
Nebraska	(327,000)	0	1. None.
Missouri	0	(296,000)	1. None.
Montana	0	(100,000)	1. None.
North Dakota	0	(68,000)	1. None.
Oregon	(67,000)	(71,000)	1. None.
South Dakota	(306,000)	(69,000)	1. None.
Washington	(441,000)	(407,000)	1. None.
		(32,000)	2. None.
Wyoming	0	(101,000)	1. None.
TOTAL - RESERVOIRS	45,834,000	42,910,000	
	(31,327,000)	(32,056,000)	
	(14,507,000)	(10,854,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

b. Channels.

1. Channel Improvements, Inspection and Miscellaneous Maintenance. The FY 2003 program request of $3,447,000 provides for the essential annual and periodic maintenance requirements of six flood control protection projects and inspection of completed works within the Division during the budget year.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
IOWA			
Missouri River - Kenslers	148,000	147,000	
Bend, NE to Sioux City, IA	(91,000)	(94,000)	1. None.
	(57,000)	(53,000)	2. None.
OREGON			
Willamette River Basin Bank	68,000	67,000	
Protection	(68,000)	(67,000)	1. None.
	0	0	2. None.
WASHINGTON			
Mt. St. Helens	319,000	321,000	
	(262,000)	(263,000)	1. None.
	(57,000)	(58,000)	2. None.
Stillaguamish River	240,000	247,000	
	(0)	(0)	1. None.
	(240,000)	(247,000)	2. None.
Tacoma-Puyallup Rivers	123,000	127,000	
	(25,000)	(31,000)	1. Additional real estate outgrants and encroachments.
	(98,000)	(96,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

b. 1. Channel Improvements, Inspection and Miscellaneous Maintenance. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
WYOMING			
Jackson Hole Levees	1,198,000	1,233,000	
	(42,000)	(53,000)	1. None.
	(1,156,000)	(1,180,000)	2. None.
Other Projects Maintained Periodically	0	0	
	(0)	(0)	1. None.
	(0)	(0)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

2. FLOOD CONTROL. (Continued)

b. Channels (Continued)

2. Inspection of Completed Works. The FY 2003 program request of $1,305,000 supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
Inspection of Completed Works	1,243,000	1,305,000	
State:			
Colorado	0	(28,000)	1. None.
Idaho	(75,000)	(81,000)	1. None.
Iowa	(749,000)	(78,000)	1. None.
Missouri	0	(532,000)	1. None.
Montana	0	(40,000)	1. None.
North Dakota	0	(15,000)	1. None.
Nebraska	0	(78,000)	1. None.
Oregon	(176,000)	(172,000)	1. None.
South Dakota	0	(24,000)	1. None.
Washington	(243,000)	(257,000)	1. None.
TOTAL - CHANNEL IMPROVEMENTS,	3,339,000	3,447,000	
INSPECTIONS AND MISCELLANEOUS	(1,731,000)	(1,813,000)	
	(1,608,000)	(1,634,000)	
TOTAL - FLOOD CONTROL	49,173,000	46,357,000	
	(33,058,000)	(33,869,000)	
	(16,115,000)	(12,488,000)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

3. MULTIPLE PURPOSE POWER PROJECTS. The FY 2003 program request of $118,738,000 for the operation and maintenance of 29 multiple purpose projects provides the amount for operational requirements. Annual requirements are for operation and ordinary maintenance of project facilities; labor, supplies, materials and parts required for the day-by-day functioning of the projects; and periodic maintenance, repairs and replacements. The requested amount also includes application of special recreation use fees for recreation areas. Specific power costs and joint-use costs allocated to power for North Pacific area projects will be direct funded by Bonneville Power Administration.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
IDAHO			
Albeni Falls Dam	1,475,000 1/	1,677,000 1/	
	(856,000)	(1,142,000)	1. Additional recreation activities in FY02.
	(619,000)	(535,000)	2. None.
Dworshak Dam and Reservoir	4,002,000 1/	3,951,000 1/	
	(1,458,000)	(1,588,000)	1. None.
	(2,544,000)	(2,363,000)	2. None.
MISSOURI			
Harry S. Truman Dam and Reservoir	8,215,000	10,253,000	
	(4,165,000)	(4,379,000)	1. None.
	(4,050,000)	(5,874,000)	2. Increased hydropower maintenance FY03.
Stockton Lake	4,065,000	4,268,000	
	(2,195,000)	(2,346,000)	1. None.
	(1,870,000)	(1,922,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
MONTANA			
Fort Peck Dams and Lake	4,342,000	7,354,000	
	(2,915,000)	(3,769,000)	1. Pallid Sturgeon Bio-Op activity.
	(1,427,000)	(3,585,000)	2. Increased hydropower maintenance FY03.
Libby Dam, Lake Koocanusa	1,791,000 1/	1,505,000 1/	
	(1,253,000)	(1,029,000)	1. None.
	(538,000)	(476,000)	2. None.
NEBRASKA			
Gavins Point Dam, Lewis	6,495,000	7,199,000	
and Clark Lake, NE & SD	(3,541,000)	(4,025,000)	1. ESA - Interior Least Tern, Piping Plover habitat work
	(2,954,000)	(3,174,000)	2. Increased hydropower maintenance FY03.
Missouri River Master Water	500,000	500,000	
Control Manual, NE, IA, KS,	(500,000)	(500,000)	1. Increased Master Manual effort Fiscal Year 02.
	(0)	(0)	2. None.
NORTH DAKOTA			
Garrison Dam Lake	9,111,000	11,939,000	
	(5,138,000)	(5,884,000)	1. ESA - Pallid Sturgeon propagation & monitoring of Tern & Plover nesting.
	(3,973,000)	(6,055,000)	2. Increased hydropower maintenance FY03.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON			
Bonneville Lock and Dam	5,430,000 1/ (3,274,000) (2,156,000)	5,043,000 1/ (2,962,000) (2,081,000)	1. None. 2. HTW Correct Act - cleanup landfill at Bradford Island.
Cougar Lake	752,000 1/ (571,000) (181,000)	732,000 1/ (573,000) (159,000)	1. None. 2. None.
Detroit Lake	584,000 1/ (474,000) (110,000)	588,000 1/ (482,000) (106,000)	1. None. 2. None.
Green Peter-Foster Lake	1,196,000 1/ (900,000) (296,000)	1,122,000 1/ (904,000) (218,000)	1. None. 2. None.
Hills Creek Lake	377,000 1/ (270,000) (107,000)	401,000 1/ (309,000) (92,000)	1. None. 2. None.
John Day Lock and Dam	4,056,000 1/ (2,186,000) (1,870,000)	3,416,000 1/ (2,171,000) (1,245,000)	1. None. 2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON (Continued)			
Lookout Point Lake	1,818,000 1/	1,613,000 1/	
	(1,456,000)	(1,381,000)	1. None.
	(362,000)	(232,000)	2. None.
Lost Creek Lake	3,049,000 1/	3,028,000 1/	
	(2,498,000)	(2,593,000)	1. Seismic safety review and additional environmental compliance assessments.
	(551,000)	(435,000)	2. None.
McNary Lock and Dam	3,650,000 1/	4,626,000 1/	
	(2,436,000)	(2,920,000)	1. Navigation lock rehab study FY03.
	(1,214,000)	(1,706,000)	2. Increased recreation FY03.
SOUTH DAKOTA			
Big Bend Dam, Lake Sharpe	6,136,000	9,137,000	
	(4,283,000)	(4,378,000)	1. None.
	(1,853,000)	(4,759,000)	2. Increased hydropower maintenance FY03.
Ft Randall Dam Lake Francis Case	8,044,000	9,016,000	
	(4,641,000)	(4,606,000)	1. None
	(3,403,000)	(4,410,000)	2. Increased hydropower maintenance FY03.
Missouri River between Ft. Peck , Dam, MT and Gavins Point Dam, SD & NE (section 33)	625,000	500,000	
	(625,000)	(500,000)	1. Resume environmental impact studies FY 02.
	(0)	(0)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
SOUTH DAKOTA (CONT)			
Oahe Dam, Lake Oahe	9,480,000	12,885,000	
	(6,729,000)	(5,592,000)	1. None.
	(2,751,000)	(7,293,000)	2. Increased hydropower maintenance FY03.
WASHINGTON			
Chief Joseph Dam	848,000 1/	853,000 1/	
	(768,000)	(636,000)	1, None.
	(80,000)	(217,000)	2. None.
Ice Harbor Lock and Dam	3,249,000 1/	5,065,000 1/	
	(2,015,000)	(2,010,000)	1. None.
	(1,234,000)	(3,055,000)	2. Navigation channel dredging & fish pump rehab FY03.
Little Goose Lock and Dam	1,290,000 1/	1,268,000 1/	
	(736,000)	(803,000)	1. None.
	(554,000)	(465,000)	2. None.
Lower Granite Lock and Dam	6,114,000 1/	5,244,000 1/	
	(1,375,000)	(1,473,000)	1. Dredged material management study.
	(4,739,000)	(3,771,000)	2. Confluence dredging FY03.
Lower Monumental Lock and Dam	2,230,000 1/	3,291,000 1/	
	(816,000)	(1,277,000)	1. Navigation lock rehab study & rehab of fish pumps in FY03.
	(1,414,000)	(2,014,000)	2. Spillway stilling basin repair continuing in FY03.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

3. MULTIPLE PURPOSE POWER PROJECTS. (Continued)

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
OREGON			
The Dalles Lock & Dam	2,961,000 1/ (1,550,000) (1,411,000)	2,264,000 1/ (1,487,000) (777,000)	1. None. 2. Lock repairs in FY02.
TOTAL - MULTIPLE PURPOSE PROJECTS	101,885,000 2/ (59,624,000) (42,261,000)	118,738,000 2/ (61,719,000) (57,019,000)	

1/ Specific power costs and joint-use costs allocated to power for this project will be direct funded by Bonneville Power Administration.

2/ Specific power costs and joint-use costs allocated to power for North Pacific area hydropower projects will be direct funded by Bonneville Power Administration.

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

4. PROTECTION OF NAVIGATION.

a. Project Condition Surveys

The $453,000 requested in FY 2003 supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
Project Condition Surveys (operations)	453,000	453,000	
State:			
Oregon	(200,000)	(200,000)	1. None.
Washington	(253,000)	(253,000)	1. None. 2. Additional surveys in FY03.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

4. PROTECTION OF NAVIGATION. (Continued)

b. Surveillance of Northern Boundary Waters

The $194,000 requested in FY 2003 supports meeting U.S. obligations under provisions of boundary water treaties and other international agreements. Data collection includes current velocity measurements, presence and intensity of ice, water levels, land use patterns and estimating potential damages caused by extreme levels. This information can be used to enhance water level forecasts, develop crises response plans, and provide advance warning to area residents and waterway users of impending floods or ice jams.

State Project Name	OBLIGATIONS Estimated FY 2002 ($) Total (Operations) (Maintenance)	Estimated FY 2003 ($) Total (Operations) (Maintenance)	EXPLANATION OF MAJOR CHANGES 1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-). 2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
Surveillance of Northern Boundary Waters (operations)	192,000	194,000	
State:			
Oregon	(136,000)	(134,000)	1. None.
Washington	(56,000)	(60,000)	1. None.
TOTAL - PROTECTION OF NAVIGATION	645,000 (645,000) (0)	647,000 (647,000) (0)	

NORTHWESTERN DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2003

5. NATIONWIDE ACTIONS.

b. Missouri River Basin Collaborative Water Resource

The FY 2003 request of $45,000 allows continuing collaborative partnering efforts with the Missouri River Basin Association.

State / Project Name	OBLIGATIONS Estimated FY 2002 ($)	Estimated FY 2003 ($)	EXPLANATION OF MAJOR CHANGES
	Total (Operations)	Total (Operations)	1. Reasons for change in Operations from FY 2002 to FY 2003 (10% +/-).
	(Maintenance)	(Maintenance)	2. Major Maintenance Items Budgeted in FY 2003 (Threshold $500,000).
Missouri River Basin Collaborative			
Water Resource	205,000	45,000	
Planning/Partnering	(205,000)	(45,000)	1. None.
	(0)	(0)	1. None.
	205,000	45,000	
TOTAL - MISSOURI RIVER BASIN	(205,000)	(45,000)	
COLLABORATIVE WATER	(0)	(0)	
RESOURCE PLANNING			
	3/	3/	
GRAND TOTAL	214,883,000	226,467,000	
	(105,019,000)	(108,771,000)	
	(109,864,000)	(117,696,000)	

3/ The following applies to North Pacific area power projects: Specific power costs and joint-use costs allocated to power will be direct funded by Bonneville Power Administration.